ATLAS EX 60

DIGITAL BUSINESS SYSTEM

INSTALLATION MANUAL

KEY SYSTEM US
WEST PALM BEACH, FL

KS TELECOM LIMITED WARRANTY

KS Telecom warrants to its authorized members and to the original retail customer of a KS Telecom product, for a period of one year from the date of shipment of the product from KS Telecom's warehouse, that the "product", except consumable items, will be free from defects in material and workmanship when used in a normal and common manner.

The sole obligation of KS Telecom under this warranty is at the sole option of KS Telecom, the repair or replacement, with new or refurbished parts, of the defective or missing parts that are causing the malfunction and which are determined to be defective by KS Telecom.

The authorized dealer shall be responsible to pay for shipment of the defective parts to KS Telecom or KS Telecom's authorized representative and for any and all expenses connected with their removal or re-installation. In lieu of repair or replacement, KS Telecom at its sole option and in full satisfaction of its warranty obligations, refund the price charged by KS Telecom to its members for such parts as are determined by KS Telecom to be defective and which are returned to KS Telecom through an authorized dealer within the warranty period and no later than 30 days after such malfunction, whichever occurs first.

This warranty does not cover defects as arise from accidents, neglect, misuse, failure of electric power, air conditioning, humidity control, or causes beyond ordinary use. All warranty claims shall be waived unless reported, in writing to KS Telecom prior to the expiration of the applicable warranty period.

KS Telecom makes no other warranties, expressed or implied, and specifically disclaims any implied warranty of merchantability or fitness for a particular purpose. These warranties are the authorized dealer's sole remedies and in lieu of all obligations or liabilities on the part of KS Telecom for damages, including, but not limited to special, incidental, or consequential damages arising out of or in connection with the use of the products, or any damages whatsoever resulting from loss of use, data, or profits, arising out of or in connection with the performance of the products. Whether in a contract or tort action, including negligence, even if KS Telecom has been advised of the possibility of such damages. The total maximum liability of KS Telecom for breach of warranty shall be limited to a refund of the cost of the defective product.

No person other than an officer of KS Telecom may extend or modify this warranty, and no modification or extension of this warranty shall be effective unless in writing signed by the authorized officer of KS Telecom.

NOTICE

The ATLAS EX 60 comes with two manuals. This manual contains a step-by-step explanation of the installation process, with diagrams. The *Programming Guide* introduces the programming process by which the system can be programmed through the Digital phones.

The procedures and methods provided in this manual have been prepared in a step-by-step manner to assist the installer in planning and performing the installation task, system operation and feature operation.

The information contained in this document is believed to be correct and accurate in all respects. The information contained in this document is subject to change without notice. Periodic changes may be made to the information contained in this document without any obligation to notify any such persons of such changes. No responsibility is assumed for any errors or omissions in this document.

The adjustments and settings mentioned in this manual should be carried out strictly by personnel who have been trained for the operation of this equipment and have also received instructions in regard to the safe handling of electrical equipment.

While this device is designed to be reasonably secure against intrusions from fraudulent callers, it is by no means invulnerable to fraud. Therefore, no expressed or implied warranty is made against such fraud.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

1. Remain on the line and briefly explain to the dispatcher the reason for the call.
2. Perform such activities in the off-peak hours; such as early morning or late evenings.

Protection of this equipment from hazardous voltages is the responsibility of the customer / owner of the equipment.

Introduction

This section describes the ATLAS EX 60 Digital Business System, a small telecommunications system that provides voice communications with a wide range of features. An overview of the system equipment is presented: followed by instructions for installing the system and station equipment and for connecting optional devices supported by the system. System specifications are grouped for a quick reference guide.

This equipment can be used with telephone company equipment that accepts pulse or DTMF dialing. The equipment has been assigned an FCC registration number under Part 68.

For direct connection to the telephone network, the equipment must be installed as described, and the FCC registration must be reported to the local telephone company.

FCC Requirements

The ATLAS EX 60 Digital Communication System is FCC-registered as a fully protected key system under Registration Number – PENDING, Ringer Equivalence 0.2a

Related Documents

For additional information regarding station feature operation, refer to the Easy reference guide included with each Digital set.
For details related to changing system database, refer to ATLAS Series 500 Programming guide.

Note:
To maximize user satisfaction and to minimize service calls, it is strongly recommended that all users be instructed in station operation and that every station user be provided with a copy of the Easy Reference Guide.

Incidence of Harm

When practical, the telephone company must inform the customer that the service may be temporarily discontinued if the equipment he is using should cause harm to the telephone network. The telephone company must attempt to inform the customer that the service is to be discontinued prior to actually terminating service. The telephone company must also provide customers with opportunity to correct the problem and must advise customers of their right to bring compliant procedures before the FCC.

System Specifications

System Capacity: Cabinet

Line / Name	Basic	Max A	Max B	Max C
Trunk Lines	4	12	8	16
Stations	12	36	44	28

Power Requirements:

Input Voltage: 110 ± 10 Volt AC, 50/60 Hz, single phase, or 220 V ± 10 Volt AC by Switchable.

Environmental Conditions:

Surrounding temperature: 0-40°C
32-104°F

Surrounding humidity: 10-90 %

Cable Requirements:

Digital Phone: Station Cable, 1-pair twisted wire.
Station loop resistance = 40 ohms max.

Single-Line Telephone: Station cable, 1-pair (2 wires).
Station loop resistance = 800 ohms max.

Cable Length:

Digital Phone: See Page 24 Fig. 13

Single-Line Telephone: See Page 24 Fig. 12

Communication Links:

Digital switching

Electret transmitter

Dynamic Receiver

Circuitry Control:

16-bit 8830 microprocessor

Number Dialing Requirements:

1) Pulse Dial

Speed: 10 or 20pps

Ratio: 60 ± 3% or 67 ± 3%

Pause: 1800ms

2) DTMF

A) Frequency range: High Group 1209Hz, 1336Hz, 1477Hz

Low Group 697Hz, 770Hz, 852Hz, 941Hz

B) Frequency uncertainty: 1.5% and less

C) Tone Level: Low level –10dBm ± 2dBm

High level –8dBm ± 2dBm

3) Duration: 70ms

4) Digit Period: 70ms

5) Memory Dial: Last Number Redial, Save Number Redial & Speed Dial

6) System speed dial: 400 numbers (100-499)

7) Station speed dial: 9 numbers

Power Failure:

An optional backup battery can be installed for power outage prevention. Length of time usually depends on battery capacity. During most communication situations 2-12 Volt 10amph batteries in series can be used. Battery charger is built in.

General Description

This part provides an overview of the system equipment, including descriptions of cabinet, cards, and station instruments.

Note: The system's programmed database is changed using Three Programming Sections with 99 two-digit MODE numbers per section. Each MODE number represents a changeable feature or function parameter. The Section and Mode numbers are referenced throughout the descriptions in this document (e.g. PROG.1-37 = Section 1, Mode 37) to allow quick access to programming information when required for clarity. Instructions for using Mode numbers to change the database are contained in the Series 500 Programming Guide.

System Summary

The ATLAS EX 60 is a Digital Communication system that operates like a Key System or as a multifunctional PABX, depending on database programming. System operation is controlled by a 16-bit 8830 microprocessor. Digital switching uses CMOS technology to assure non-blocking operation.

The 8830 microprocessor performs all logical operations and passes control signals to other circuits in accordance with system demands. Microprocessors located in each Digital Phone in the system communicate with the system controller for operational control.

System and station feature operations and selected system functions are controlled by a stored program database. The database in default state is stored in on-board EPROM. The default database is copied to battery-protected RAM during system initialization. It supports a fully operational system. Values in the RAM-based data can be changed as needed.

The system can be configured 52 ports with 16 Trunks, 24 Digital stations and 4 Single-Line telephones. Regardless of capacity used the system remains non-blocking with consistent voice quality.

The system supports ATLAS 1-pair Digital keyphones and industry-standard single-line phones (with electronic ringers). One Digital Display phone is required for system programming. 64 Button Digital DSS consoles can be equipped to operate as a companion to Digital keyphones. Each console occupies one digital port.

The ATLAS Digital keyphones are available in LD40 (6-line by 20-character Display) and DT 36 / DB type button models. The DT 36 / DB type button is available with a 2-line by 16-character Display. All ATLAS Digital keyphones are headset compatible.

Equipment Summary

The Main equipment cabinet is modular in design. It houses the power supply and the MBU Unit. The power supply occupies the bottom portion of the cabinet; the MBU card occupies the remainder of the cabinet. The MBU Unit controls system operation, 4 Trunks, 8 Digital ports and 4 single-line ports. An Expansion card can be added which supports an additional 2 BRI, 4 TKU, 8 DSU and 8 SLU.

The power supply is a wired–in unit. The outputs are +5 Volts at 3amps, -28 Volts at 4amps and – 60 Volts 1amp. Full control is available for a customer-supplied backup battery, including trickle-charge capabilities.

Note: SLP ring voltage is 45VAC (rms) and will not support Mechanical type ringers.

Trunk interface circuits support Loop-start trunk applications. Trunk lines connect to the MBU card through card-edge-mounted modular jacks.

Digital keyphones and Single-line telephones connect to the MBU through a card-edge-mounted RJ-11 or Quick.

Options available and supported by the system include:

1-programmable external music source interfaces
1-external page port interface
2-programmable external relay interfaces
2-serial port interfaces
1-connecting terminals and control circuit for backup batteries

Numbering Scheme

Station and Trunk Port numbers are fixed and cannot be changed. Station extension numbers are assigned in the default database but can be changed by system programming (PROG.2-70). Default station numbers are 10 – 45. One, two, three or four digit station numbers can be programmed. The system does not allow conflicts in station number assignments (i.e. station number 20 and station number 200), but does allow the same number to be assigned to more that one port, when this occurs only the lowest numbered port can be called on intercom.

Dial access codes are used at keyphones and single-line phones to access features. At keyphones, all features can be accessed by fixed feature buttons, programmable softkeys, or by dial access codes. The feature access codes are listed in Table A.

TABLE A

DIAL ACCESS CODES FOR IDLE STATION

DIAL ACCESS CODES	FEATURE
1-6999	Station Intercom Dialing
1-7*	Station Group call Pickup
1-7#	Page keyphone group
71 + Station No.	Call Forward All Calls
72 + Station No.	Call Forward Busy/No Answer
71* + Station No.	All Calls Follow Me
72* + Station No.	Busy/No Answer Follow Me
73 + Station Hunt Group No.	Ring all Stations in Group
739	Voice Mail Main Greeting
741 + HHMM	Daily Alarm
742 + HHMM	Once only Alarm
743 + Station No.	Message Wait activate
744	Message Wait respond
745	Answer Paging call
746 + 01-09	Personal Speed Dial
747	Do Not Disturb
748	SLP Conference
749 + Lock Code	Phone Lock
740 + Station No.	Message Wait clear
74*	Station Caller ID History
74* + Data	Station Caller ID History
75 + Station No.	Hold Pickup
76 + 0-9	Call Park/Call Park Retrieve
77 + Trunk No.	Access Outside Line
78 + Station Hunt Group No.	Station Hunt Groups (1-8)
70 + Speed Dial Bin	System/Personal Speed Dial
70 00	Redial
70#	Redial
8	Trunk Hunt Group 8
9,91-98	Trunk Hunt Groups 1–8
0	Call Operator
*	System Call Pickup
# + 1-8	Page External Zone 1-8
#9	Page all internal

#0	Page all external
#*	Page all internal/external
1	Music over external page (#0 or #*)
#	Background music

ATLAS EX 60 Main Board Unit (MBU)

The Main KSU provides for many connections to external devices as well as for the stations and Trunks.

Connectors	Description
JR1	Serial Port 1 used for SMDR / PC Programming
JR2	Serial Port 2 used for Voice Mail Integration
JR4	Relay Interface 1 & 2 (Programmable)
JR5	External Page & Music Source 1 & 2 Interface
JRA1 , JRC1 , JRE1 , JRG1	Digital Stations Ports 1 – 8
JR6	Trunk 1 & 2 RJ14 Interface
JR7	Trunk 3 & 4 RJ14 Interface
JR8	Single Line Ports 9 – 10
JR9	Single Line Ports 11 – 12
J1	10-Pin Connector to Power Supply
J4 , J6 , J8 , J9	Connector for Station Expansion Card (8 port)
J2 , J4 , J6	Connector for Trunk Exp Card (4 line)
J11 , J12	Connector for 12 KHz / 16KHz Tone Detector unit (Note)

Note : without TDU Card should be plug in 10 pcs of mini Juper on J12.

Switches	Description
SW1 Dip 1	Not Used
SW1 Dip 2	Ignore RTS & CTS on COM1
SW1 Dip 3	Not Used
SW1 Dip 4	Not Used
SW1 Dip 5	"ON" = Pulse Dialing / "OFF" = DTMF Dialing
SW1 Dip 6	"ON" = 3 Digit ICM numbering / "OFF" = 2 Digit ICM numbering
SW1 Dip 7	"ON" = A Law / "OFF" = μ Law
SW1 Dip 8	Not Used

Switches	Description
SW2	Memory Back up Switch
SW3	System Reset Switch

LED	Description
LED1	Memory Back-up Battery "ON" Indicator
LED2	CPU Status (Steady Flash indicates normal operation)
LED3	Single Line Ports 9 – 12 Ring Busy status.
LED4	Monitoring RS232 Data communication.
LED5	Monitoring RS232 Data communication.
LED6	Monitoring RS232 Data communication.
LED7	Monitoring RS232 Data communication.

See Figure 1 Mother Board

Hardware Options

Backup Battery

The system power supply supports a backup battery package rated at 24 volts, 0.7 amperes/hour. A trickle-charge maintains the battery at 95% efficiency, applies system cutover to battery when facility power is removed, and provides system shutdown when battery power falls below a specified level.

External Music

Up to one (customer supplied) monaural music sources can be connected at the optional equipment terminal (JR5) located on the left side of the KSU. The connected music is available to the system only if programmed using system Programming (PROG. 3-37 and 2-75) the impedance of the music source must be 32ohms with power at approximately 100 milliwatts.

Note: An internal music source is available and is selected through system programming by default.

Note: In some circumstances there may be broadcast restrictions associated with the external music source. Check with the sources original distributor and/or the radio station for copyright and broadcast restrictions concerning background music and music-on-hold.

External Paging

The system supports a customer supplied amplifier for paging access to a single paging zone. The amplifier can be connected at the optional equipment terminal (JR5) located on the left side of the KSU. Access is provided for 8 paging zones. The output for zones 1-7 must be connected through station ports and must be assigned by system programming (PROG.3-35).

External Relays

The system supports 2 external relays for multiple functions such as station, trunk, loud-bell, Paging, Music, and Door strike control. The customer supplied optional equipment can be connected at the optional equipment terminals (JR4) located on the left side of the KSU. The contacts can be programmed (PROG.3-40 and 3-41) for normally "open" or "closed" depending on customer needs.

Caller I.D.

The system supports Caller I.D. offering Name or Number display. The caller I.D feature is programmed in the system database (PROG.1-05, 2-26 and 2-73). Caller I.D. number is reported to SMDR print-out (see Figure 4).

Voice Mail.

The system can be equipped with an optional 4 port Voice Mail Card mounted over the main MBU board. The Voice Mail connects internally to the Communications Bus via ribbon cable connected to J10 located in the lower left corner of the main MBU and the integration cable to COM2 (JR2) located on the right side of the main MBU. See Figure1.

For programming the Voice Mail uses software ports 21-24 when configured 8 x 16 x 4 and software ports 37-40 when configured 8 x 32 x 4.

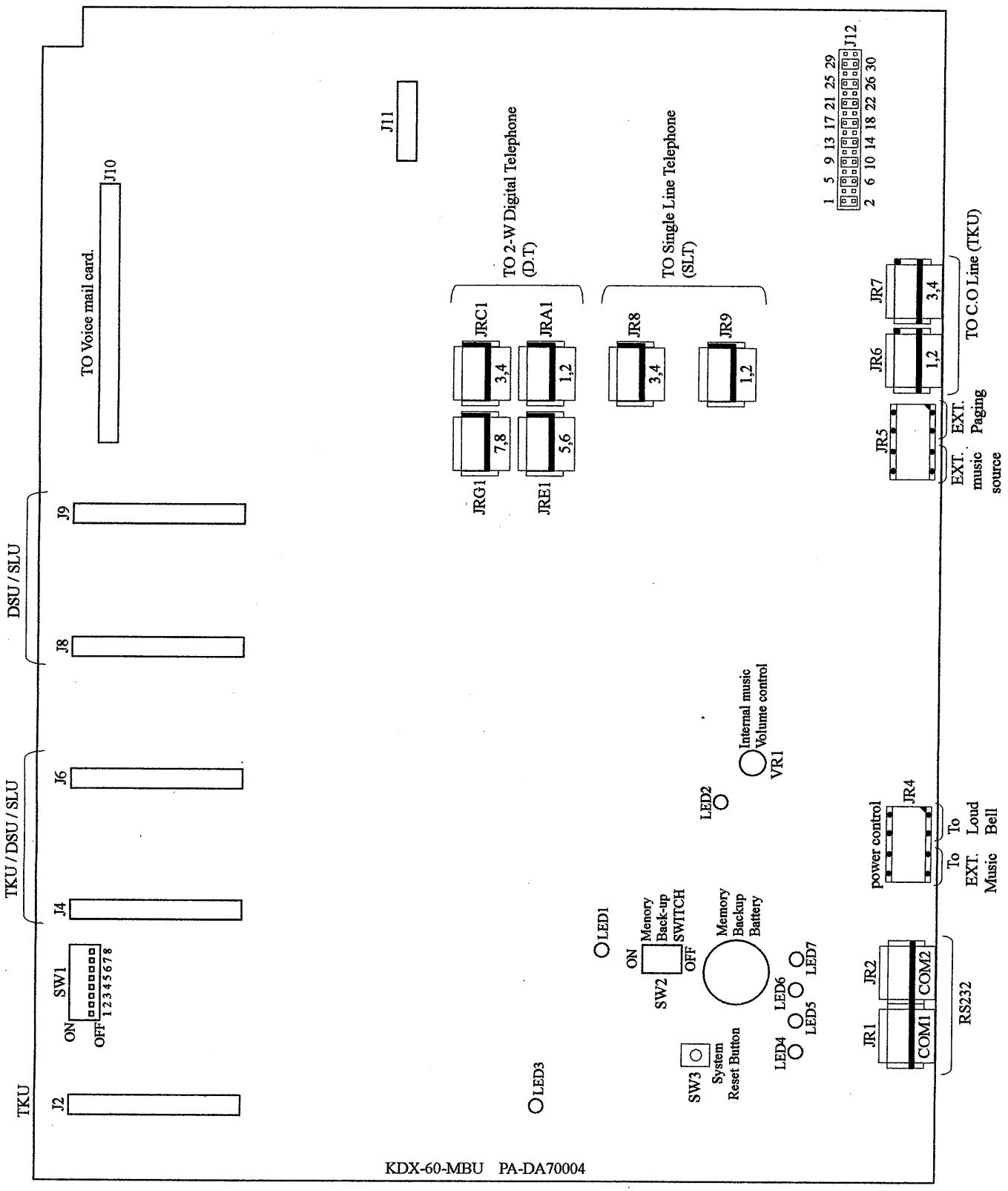

Figure 1 : MBU Card

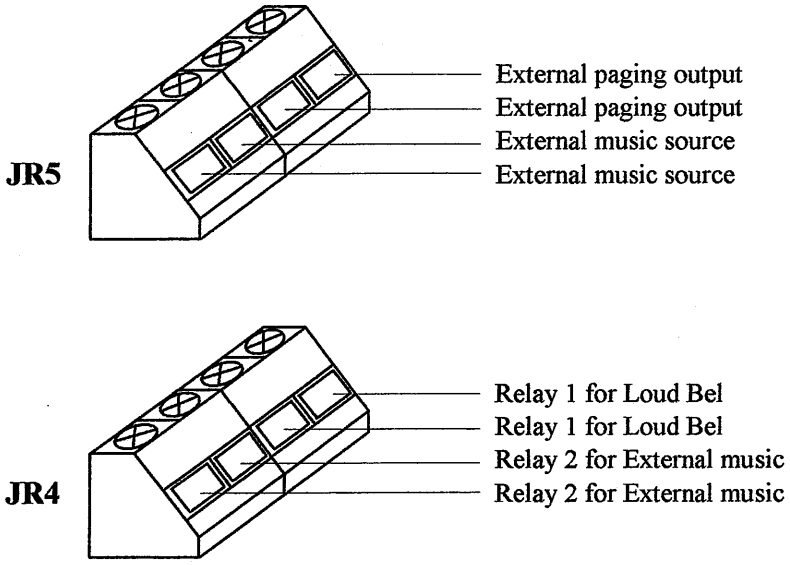

Figure 2 : Optional Equipment terminal PIN Functions

Serial Ports

The system supports 2 serial ports COM1 and COM2, COM1 is used for PC programming and SMDR (see Figure 3) and COM2 accessible only from the inside is used for Voice mail integration. They are card-edge-mounted modular jacks located on the bottom side of the cabinet. They are labeled JR1 and JR2. The distance between the data device and the common equipment can be up to 100 feet in a quiet electrical environment. Shielded cable may be required for some runs. For longer distances, a customer supplied serial extender may be used to relay the data communications between the common equipment and the data devices.

Baud rate = 1200(2400)bps; data bits = 8; stop bits = 1; parity = none.

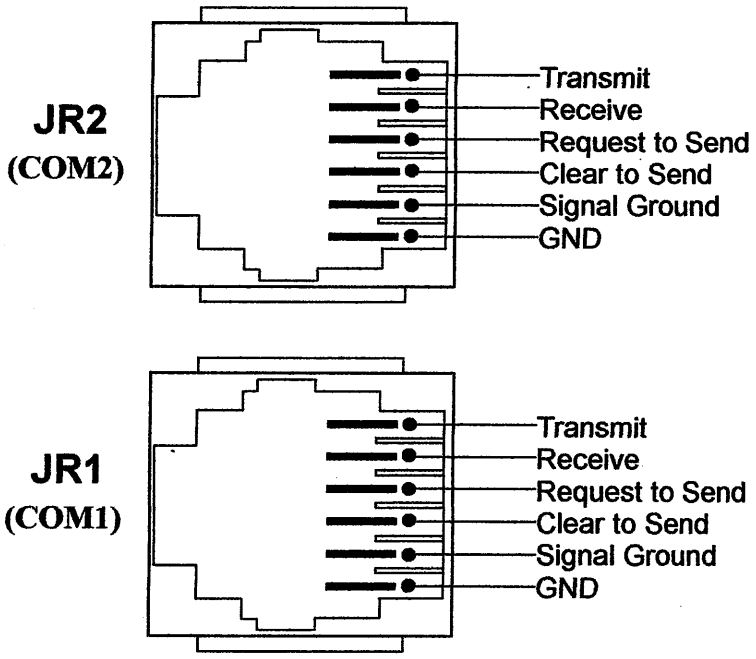

Figure 3 : Serial Port Jack Pin Functions

SMDR Printout

ST	TK	TELEPHONE NO.	TRF	ACC.NO.	DATE	START	DURATION	RING
10	05	5156310	113		04/01	09:15	00:01:05	
16	04	15618400636			04/01	09:18	00:04:56	
****	08	##################			04/01	09:37		00:12
26	01	# 5615156300			04/01	10:02	00:14:30	00:06
****	02	# 5615156301			04/01	10:03		00:54
12	09	1305551212		254	04/01	10:18	00:04:18	
17		<STATION ALARM>			04/01	13:00		

COLUMN	CONTENT	EXPLANATION
1	ST	STATION NUMBER
2	TK	TRUNK NUMBER
3	TELEPHONE NO.	TELEPHONE NUMBER CALLED. *REPRESENTS AN INCOMING CALL. STATION ALRMS ARE ALSO NOTED HERE.
4	TRF	ENTRY DENOTES A TRANSFERRED CALL
5	ACC.NO.	OPTIONAL CALLER DIALED ACCOUNT CODE
6	DATE	DATE OF THE CALL RECORD- MM:DD
7	START	TIME OF DAY CALL STARTED- HH:MM
8	DURATION	LENGTH OF CALL- HH:MM:SS
9	RING	RINGING TIME FOR INCOMING CALLS- MM:SS

Explanation of Example Entries:

1. On 04/01 at 09:15 AM Station 10 seized trunk 5 and made an outside call to 5156310. The call lasted for 1 minute and 5 seconds. Before being transferred.
2. On 04/01 at 09:18 AM Station 16 seized trunk 4 and made an outside call to 15618400636. The call lasted for 4 minutes and 56 seconds.
3. At 09:37 AM an incoming call rang and was not answered. There was no Caller ID.
4. An incoming call rang on trunk 1 for 6 seconds from 5615156300 was answered by station 26. The call lasted 14 minutes and 30 seconds.
5. An incoming call rang on trunk 2 for 54 seconds from 5615156301 and went unanswered.
6. An outgoing call to 13055551212 on trunk 9 by station 12 lasted 4 minutes and 18 seconds during which time the station user entered an Account code 254.
7. At 1:00 PM a station alarm rang at Station 17.

Figure 4: SMDR Call Records and Explanations

Installation Procedures

This part contains the procedures for installing the ATLAS EX 60 Digital Business System. Precautions for personnel and equipment safety and installation prerequisites are provided before detailed instructions for installing the equipment cabinet, connecting ground, installing and wiring station cross-connect blocks, connecting Trunk lines, and installing station equipment.

Precautions

The following paragraphs explain the precautions to be observed for handling, installing, and working with system equipment and components.

Handling Static-Sensitive Devices

WARNING: The system contains static-sensitive components. Personnel who are required to handle Printed Board Assemblies (PBA's), components, or wiring must have knowledge of proper handling techniques.

The human body can easily accumulate a high voltage charge of static electricity. Precautions must be taken to prevent this charge from damaging static-sensitive components. The following are standard handling precautions for static sensitive devices:

Touch the cabinet to dissipate any stored charge immediately before removing, inserting, or otherwise handling a PBA.
Hold the PBA by its edges and avoid touching component pins or connectors.
Cover work surfaces with conductive material connected to earth ground. A ground clip connected to a static-protective shipping bag provides an adequately protective work surface.
Use flexible ground straps to continuously discharge static electricity.
Store PBA's in static-protective shipping bags.

Installing Station Wiring

DANGER: TO REDUCE RISK OF ELECTRICAL SHOCK AND PERSONAL INJURY, USE CARE WHEN INSTALLING STATION WIRING

Observe the following precautions when installing station wiring:

Never install telephone wiring during a lightning storm.

Never install telephone jacks in wet locations unless the jack is specifically designed for wet environments.

Never touch un-insulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.

Use caution when installing or modifying telephone lines.

Connecting Power Cords

WARNING: Do not attach power supply cords to building surfaces.

The basic system is furnished with a detachable power supply cord that is configured for connecting to a branch circuit receptacle equipped with a third wire ground. The cord should be dressed for appearance and safety, but never attached to the building surface.

Site Requirements

The selection of a suitable location is essential when installing the key service unit (KSU). The area should be clean, dry, static-free, temperature controlled, and accessible only to authorized personnel. When selecting a site, give careful consideration to the following:

Ample space must be allowed to mount the cabinet and MDF (Main Distribution Frame) and to allow for removal of the KSU cover to access assemblies and cards within the cabinet.

A well-ventilated and well-lighted area with a temperature range of 32-100° F (0-40° C) and 10%-90% relative non-condensing humidity. The area must not be exposed to direct sunlight, heat or dust. Optimal temperature range is 40-70° F.

A dedicated 110/220 Volt AC, 15 Amp, 50/60 Hz, single phase, 3 wire, and parallel blade with ground power outlet should be located within 2 metres of the KSU. Additional outlets for music source, paging amplifier, etc. as needed. The AC receptacles must be third-wire grounding type. The third-wire ground must be connected to an approved earth ground through the single-point grounding circuit at the power distribution panel.

Avoid areas that produce radio frequency interference (RFI) or electro-magnetic interference (EMI). (E.g. electric welding equipment, radio frequency transmitters, magnets, refrigerators, copy machines, microwave ovens, etc.)

Locate the KSU and stations so as to minimize cable length. All station cables must be 1-pair twisted-pair cable and must be home run. The Digital Keyphone may be wired differently.

Cabling lengths must not exceed the following:

Digital phone: using 24 gauge – 1000 feet depending upon wiring configuration.

Single-Line Telephones: using 24 gauge – 5000 feet.

The Trunk lines connect to the system through modular jacks located on the left side of the KSU. Central Office terminations should be within 6 feet of the cabinet/main distribution frame.
Make sure there is a good earth ground utilizing #12 AWG or larger standard, copper wire within (8 metres) of the KSU. A metallic COLD water pipe usually provides a reliable ground path. Carefully check that the pipe does not contain insulated joints that could isolate the ground. (The pipe must be metallic from the point of ground to the connection to the water main outside the building).

Warning: To avoid equipment damage, do not attempt to connect or operate the equipment before proper ground has been installed.

Power Surge Protector Ground

Power surge protectors must be grounded either to the approved earth ground or an equally adequate but separate grounding system. Install ground wires of the size specified by the manufacturer between the line protector devices and the earth ground connection. Be sure to connect the ground wire at a point closer to true earth ground than the AC distribution panel single-point ground wire and the chassis ground wire connections. Secure the attaching clamp.

Telephone Line Power Surge Protection

System equipment must be protected against power surges on all externally connected telephone lines. This includes protecting lines coming into the building from the telephone company, lines going out of the building to off-premises stations located in an adjacent building, and lines going into the adjacent building that houses the off-premises stations.

Unpacking and Inspecting

The following paragraphs provide directions for unpacking and inspecting the system components.

WARNING: *The system equipment* contains *static sensitive components. Personnel who are required to handle components or wiring must have knowledge of proper handling techniques and must have the necessary safeguard equipment for protecting static-sensitive devices. Refer to precautions.*

All equipment is packaged in corrugated cardboard containers. All equipment options are packaged separately in individual cartons. Each telephone is packaged separately in an individual carton. However, an outer slip or larger container may be used to group quantities of telephones.

Check all items received against the packing slip. Examine cartons for visual signs of damage. If cartons appear too be damaged, make a note of such damage on the packing slip and on the carrier way bill, if available.

Open the carton containing the system equipment. Remove the packaging material from the carton. Remove the cabinet and lay it face–up on a level work surface. Remove all packaging material. Check the exterior cabinet. Make a note of any damages.

Observing electronics equipment handling precautions, remove each piece of equipment from its shipping container. As each item is unpacked, place it on a level work surface. Remove packaging material and inspect the equipment for physical damage. Make a note of any damages.

Report all damages noted to your supplier.

Main Cabinet (KSU) Installation

When mounting the KSU, care should be taken to mount the equipment so that all cables and AC cords are neatly arranged. The KSU should not be mounted directly of masonry, concrete, or other wall surfaces subject to moisture or condensation. (Use plywood backup board when mounting on these types of surfaces). Locate the four mounting hardware screws as shown by Figure 6. The recommended screw size for attaching the cabinet wall mounting brackets on a 20 mm (3/4 inch) plywood backboard is 6 mm x 38 mm (# 8 x 1.5 inch) pan-head screws. The slots for hanging the cabinet are located on the back of the cabinet. The power switch and power cable should be at the lower left of the cabinet. Once the mounting plate is attached to the wall or prepared backboard, simply hang the unit on the wall.

Immediately after mounting the KSU, the system must be properly grounded. The AC line cord (green conductor) is not always a reliable earth ground, it should not be used as the required ground. There is a ground port beside the cabinet for ground wiring. Refer to Figure 5.

The AC connection to the power supply requires a parallel blade with a ground receptacle. A three to two wire isolation adapter should not be used. To ensure proper system operation, a good earth ground should be provided. In most cases, this can be provided by a metallic cold water pipe. Earth ground should be provided using 16 AWG or larger with a surge protector to provide clean unfiltered power and to protect against high voltage. The cleaner the power, the longer the system will last.

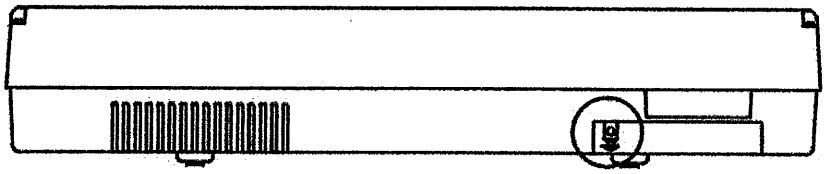

Figure 5 : GROUNGING POST

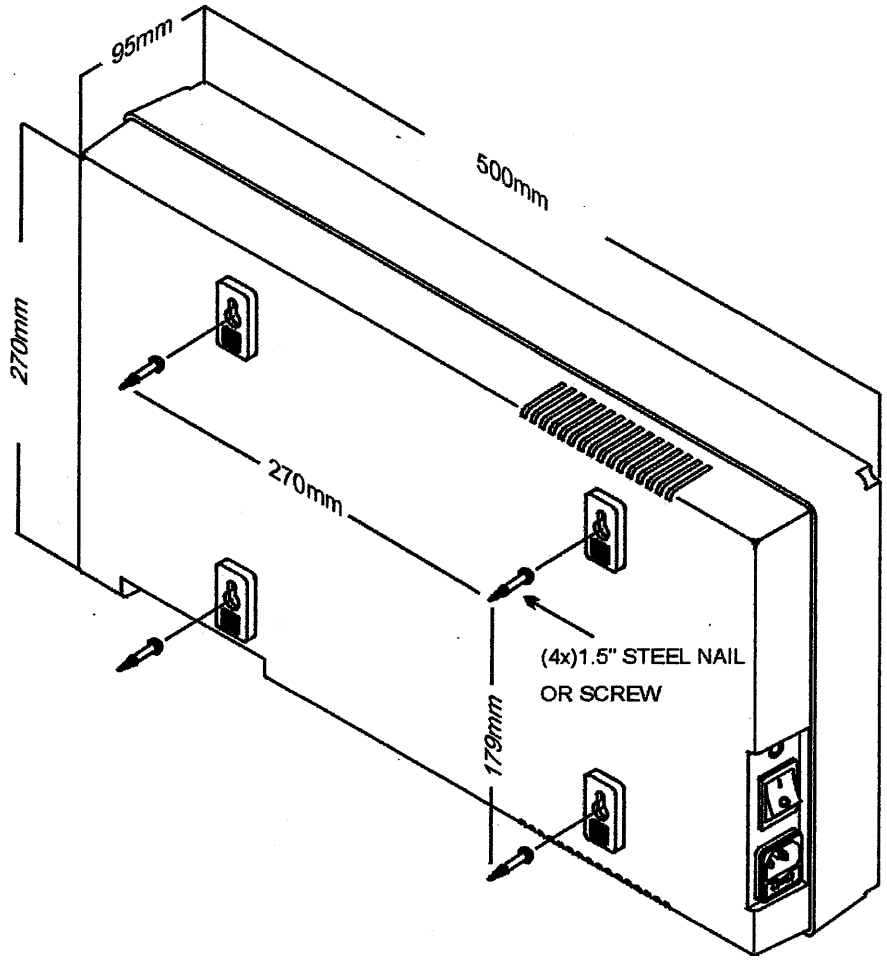

Figure 6 : HOW TO WALL MOUNTING

Installation of Cards

WARNING!!* TURN *OFF THE POWER BEFORE INSERT OR REMOVE CARDS!!

To insert a card:

Push lightly until the male connectors surely into the female receptacles on MB. Once the pins and receptacle are connected correctly, push on both ends simultaneously to insure good connection.

To remove a card:

Remove the card by pulling up the both ends of it simultaneously.

Trunk Connections

All trunk connections are made on the left side of the cabinet. (See Figure 1) Two lines are connected through each modular jack. Refer to Figure 7 for modular jack or Quick Connector pin functions. Install a modular line cord between each trunk terminating modular wall jack and the corresponding jack on the side of the cabinet.

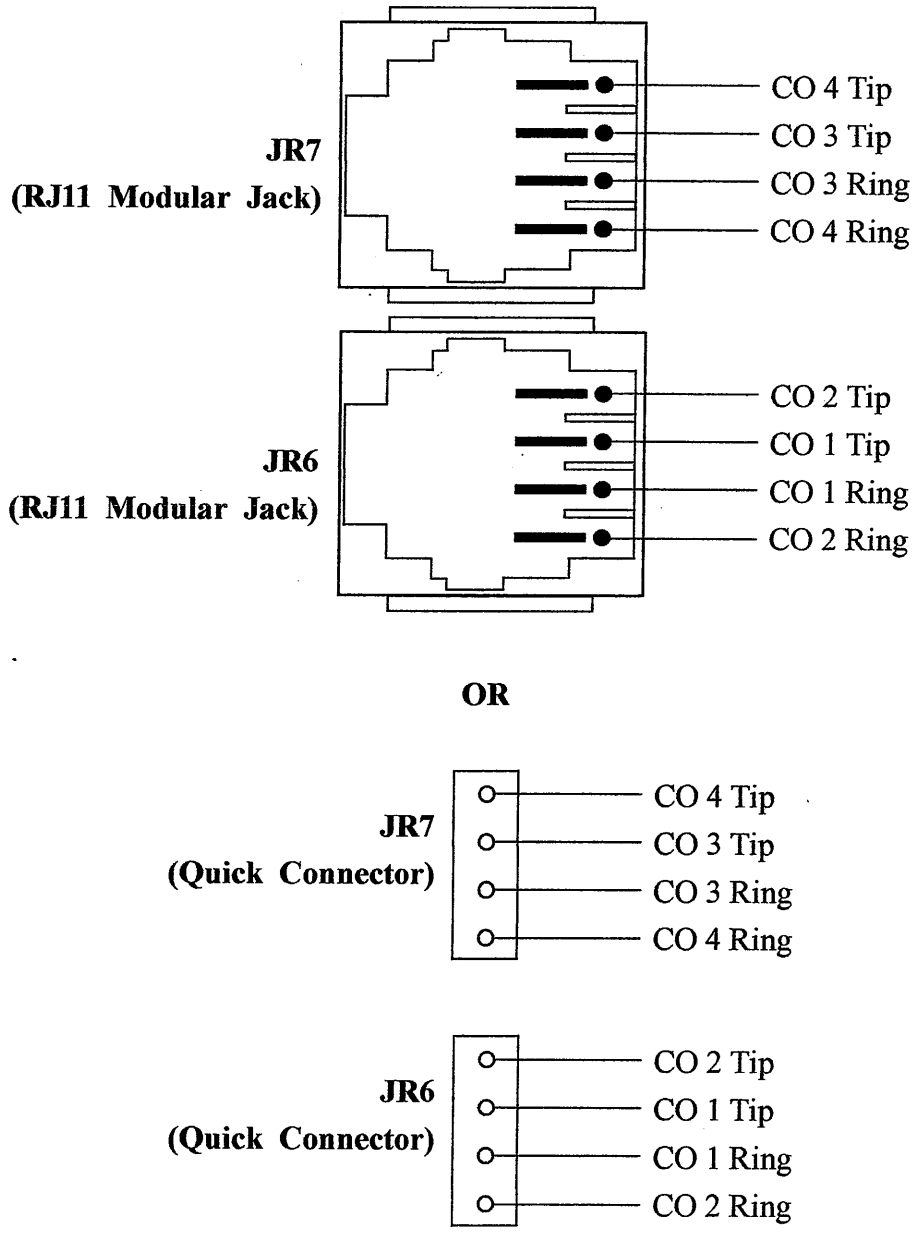

Figure 7 : Typical Trunk Connecting Jack Pin Functions

How to Use the Quick Connector

Insert the necessary wires into the guiding holes on the top of the connector. The PVC covering wires can be seen as they reach the bottom of the guiding holes. Press the quick connector from both sides, then the wires will be clipped and stripped by the blades inside. Try to pull the wires out to make sure that they are fixed and attached. Please refer to Figure 8.

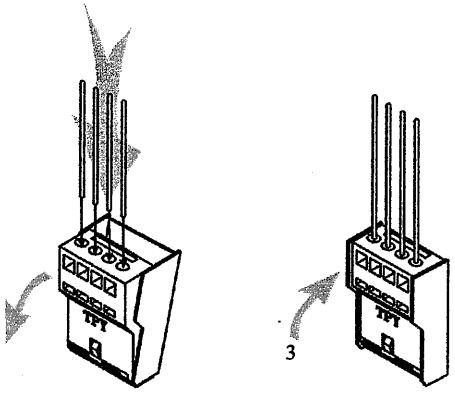

Figure 8 : QUICK CONNECTOR

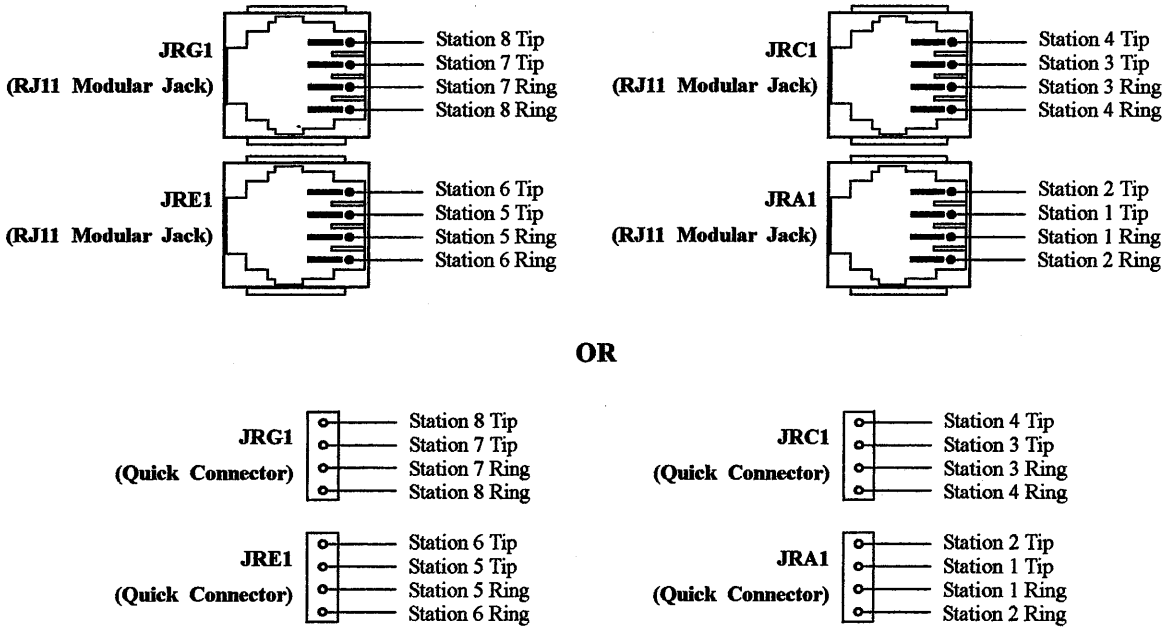

Figure 9 : Typical Station Connecting Jack Pin Functions

Single-line Phone Wiring

Each quick connector supports either one Keyphone or one single-line phone. Single-line phones can use a cable length of up to 1500m (5000 feet) using 24 gauge cable. As to connect a single-line phone, only to connect the two pins, TIP and RING. Please refer to Figure 9.

Keyphone Wiring

All stations are lines run to common 66 type connection blocks. Keyphones require 1 pair industry standard twisted cable. The maximum cable length is 300m (1000 feet) when using 24 gauge wire. Please refer to Figure 9.

CAUTION !!!

- ***Never*** install telephone wiring during lightning storm.
- ***Never*** install telephone jacks in wet locations unless the jack is specifically designed for *wet* locations.
- ***Never*** touch uninsulatted telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use ***CAUTION*** when installing or modifying telephone line.
- ***Some guidelines for running station cable:***
- ***AVOID*** cable runs parallel to fluorescent light fixtures or AC lines not in conduit. If these obstacles are unavoidable. Run the cable across them at right angles.
- ***DO NOT*** run station cables inside electrical conduit already occupied by AC power cable.
- ***DO NOT*** run station cables near equipment with electric motors or past strong magnetic fields. (copy machines, heavy motors, welding equipment, etc)
- DO NOT place station cables where they can be stepped on, or rolled over by office chairs or desks.

Installing the Keyphones

1. Unpack and inspect each Keyphone for damage. Along with Keyphone, the box should contain a 1.8m (5.9 feet) line cord, a coiled handset cord and a handset.
2. With the KSU AC power on, check for the correct voltage (24-Volts) across the black and yellow terminals on each modular jack assembly.
3. Install the Keyphones by plugging the 1.8m (5.9 feet) base cord into the back of the Keyphone and also into the modular jack assembly in the wall.

Wall Mount a Keyphone

The base plate is mounted by attaching two screws to the base of the unit. Once secured, drive a #8 pan-head screw (or proper hardware for the wall) into the center of each mounting hole marking. The head of the screw should protrude approximately 6 to 12 mm (0.2 to 0.4 inch).

Mount the Keyphone on the wall. Adjust the screws if necessary to ensure that the Keyphone is securely mounted, and adjust the handset clip. For a clear demonstration, please refer to Figures 10 & 11.

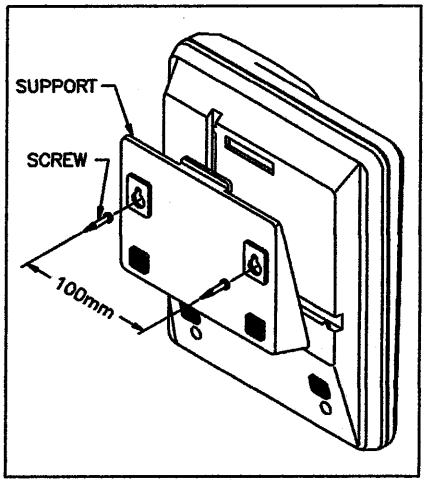

Figure 10 : WALL MOUNT THE KEYPHONE

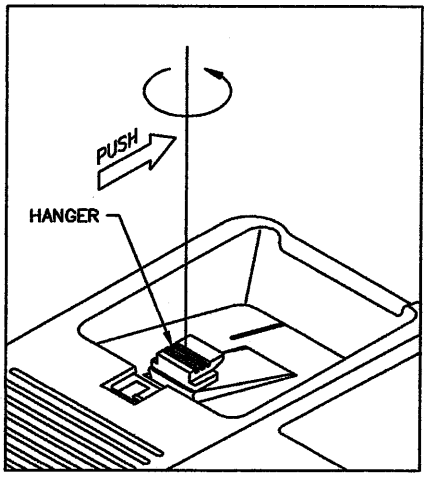

Figure 11 : ADJUST THE CLIP

DSS Installation

The DSS unit requires a digital phone port just as the digital phone does. Observe Dipswitch settings on bottom of DSS.

The DSS is always installed in the next highest physical digital phone port from the phone that will work with it. (E.g. Digital phone port11 / DSS must be port 12)

It is possible to install more than one DSS with one digital phone. (E.g. If Digital phone is port 23 / DSS (1) must be port 24, DSS (2) must be port 25)

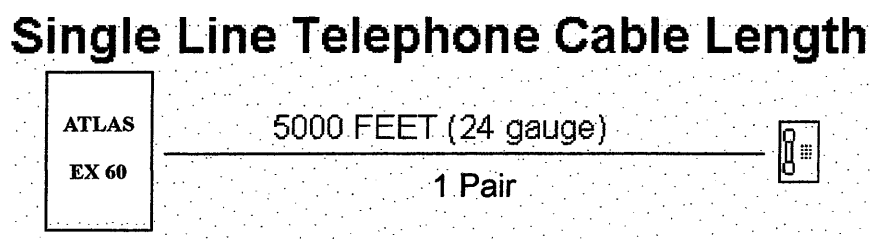

Figure 12: Single Line Telephone cable length

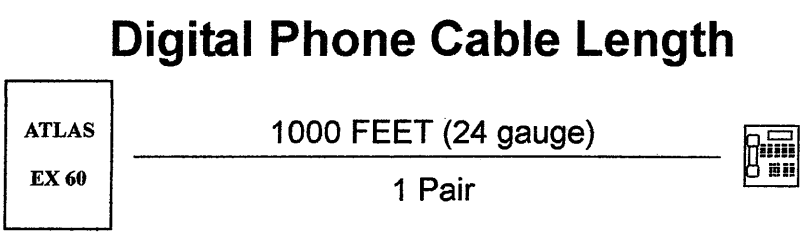

Figure 13: Digital Phone cable length

BATU UNIT

The BATU Unit provides the capability to connect external batteries to the system to provide for complete system operation in the event of local power failure. Attach batteries (24 VDC) to the BATU Unit at the appropriate terminals. (See Figure 19) The system applies a trickle charge to the battery when it is not in use.

Keep the battery(s) dry and clean. Avoid damp wet areas or areas where the battery may be easily damaged. Wires should run from the battery(s) to the terminals on the BATU Unit. When connecting to the BATU, pay particular attention to matching the positive and negative connections. Improper connection will damage the power supply. When operating from the battery, the system will automatically cut off the power supply from the battery when the voltage gets too low, so that the battery can be recharged.

CAUTION!!!! To reduce the risk of fire or injury please note the following:

Do not dispose of the battery(s) in a fire. The cell may explode. Check with local codes for special disposal instructions.

Do not open or mutilate the battery(s). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.

Exercise care in handling the battery(s) in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery may overheat and cause burns.

Observe proper polarity orientation between the battery(s) and BATU Unit.

Do not mix battery(s) of different sizes or from different manufacturers in this product.

The length of time system operation is maintained under battery power depends on battery capacity. Typical system support for the 24 Volt battery(s) is approximately one hour.

TKU (Trunk Unit)

The system provides 3 slots for trunk interface card. Each TKU contains 4 analogue trunk interface circuits for loop-start applications. It supports both DTMF and Pulse dialing. The female receptacles on the back of TKU are provided for TDU card.

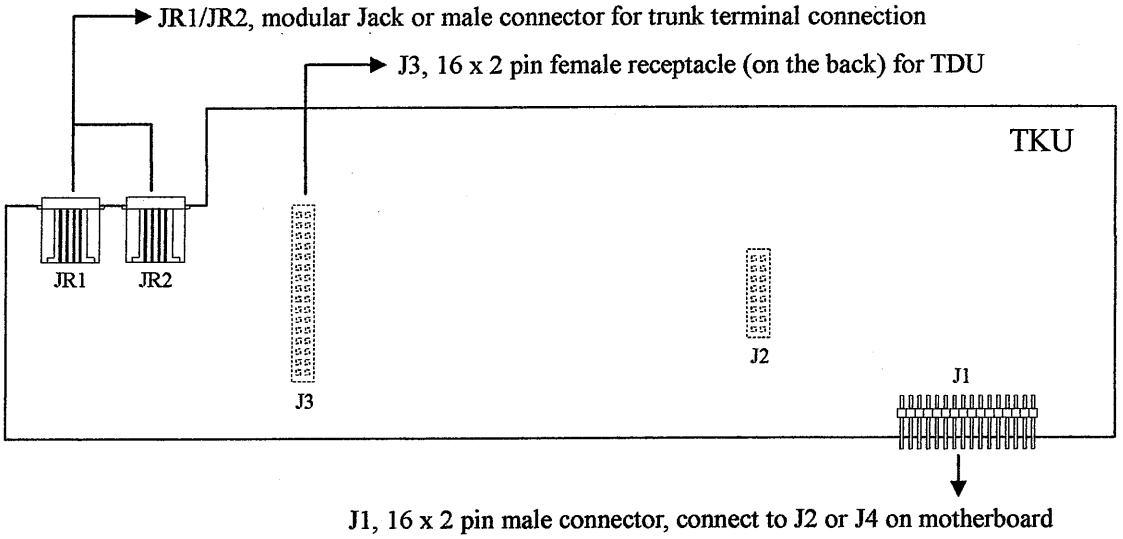

Figure 14 : TKU

The male connector on TKU should be plugged with jumpers as the Figure below if the TDU is not installed.

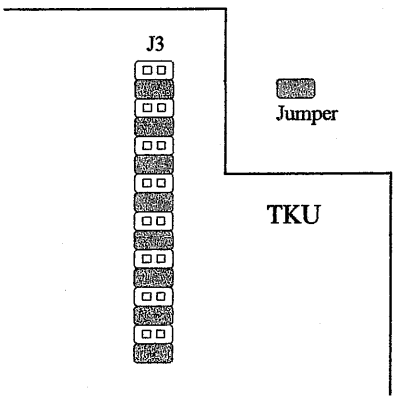

Figure 15 : JUMPERS ON TKU

TDU (Tone Detection Unit)

The TDU which adheres on TKU is used to detect 12 / 16 Khz signal sent from the Central Office. Each TDU serves 4 trunk lines.

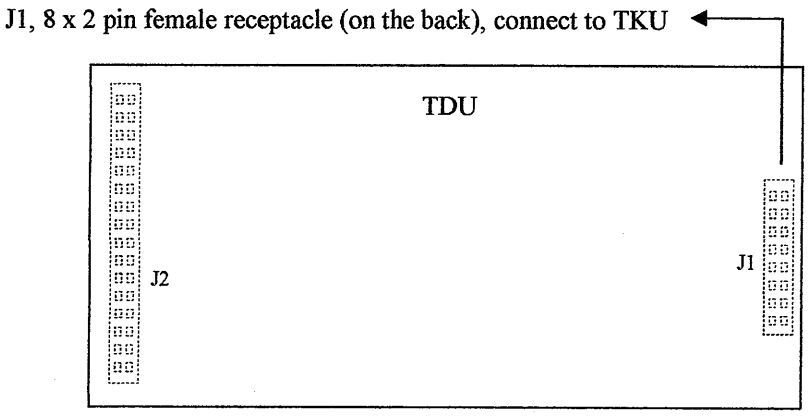

Figure 16 : TDU

IIU (ISDN Interface Unit)

The IIU provides 2 BRI interface circuits for voice calls. Each BRI has two B plus a D channels; in another word, each IIU supports 4 trunk lines. The users who own ISDN BRI can access some special features such as, **CLIP** (Calling Line Identification Presentation) / **CLIR** (Calling Line Identification Restriction), **COLP** (COnnected Line identification Presentation) / **COLR** (COnnected Line identification Restriction), **MSN** (Multiple Subscribed Number), **DDI** (Direct Dial Inward), charging supply service,...,etc. However, some features are restricted from being used in some areas. Please contact your local Central Office for detailed information.

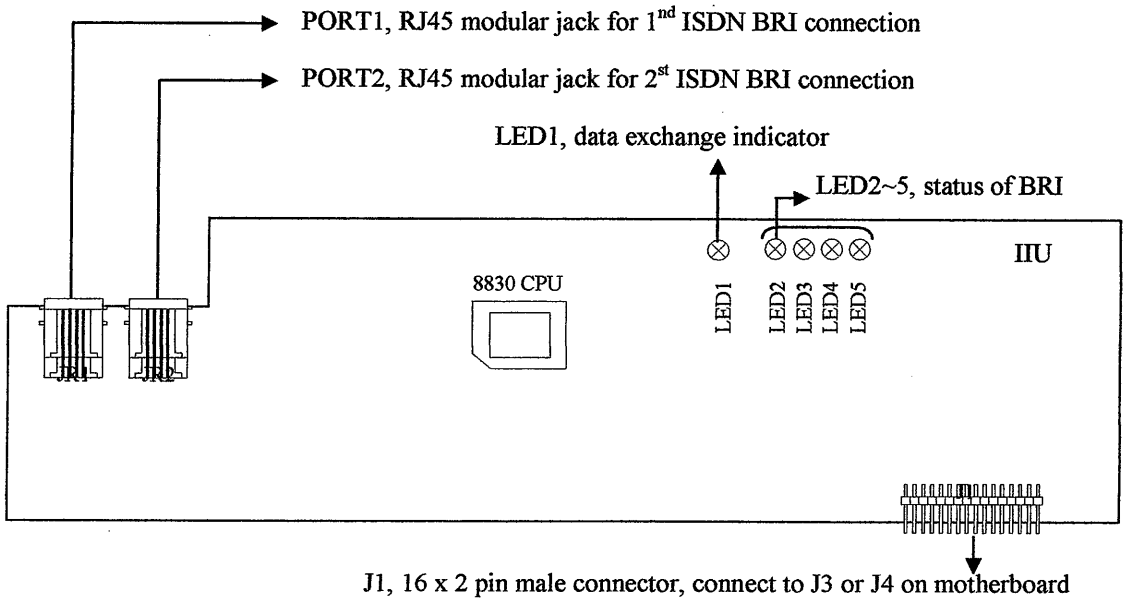

Figure 17 : IIU

DSU (Digital Station Unit)

The system provides 4 slots for DSU / SLU interface card. Each DSU provides 8 keyphone interface circuits for proprietary keyphone connections. The interface card transmits and receives digital signals to the keyphones. A current limiting circuit protects against accidental shorts among the connectors during the telephone installation.

SLU (Single-Line phone Unit)

The SLU provides 8 single-line phone interface circuits.

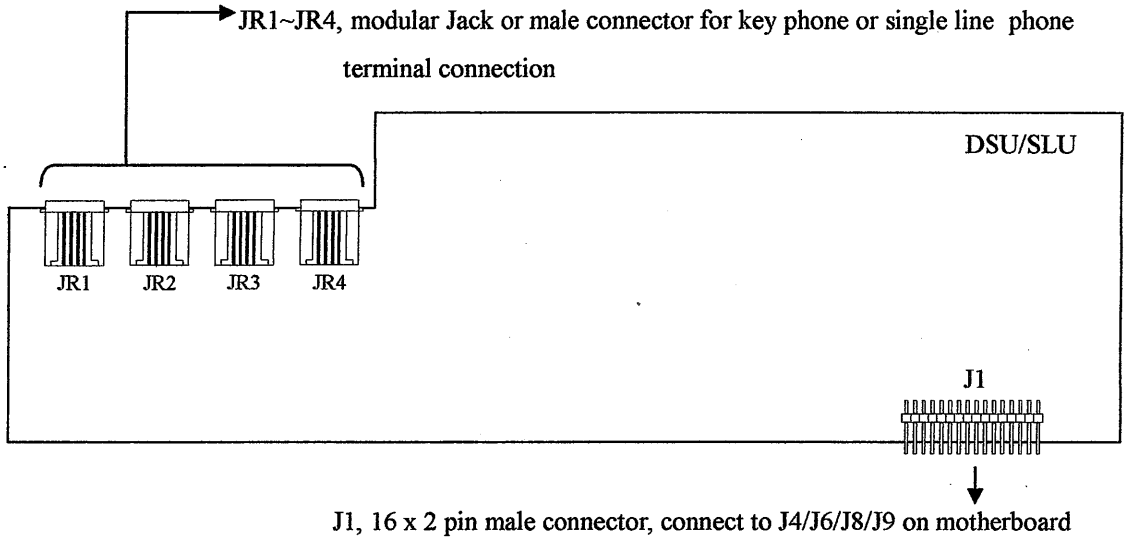

Figure 18 : DSU/SLU

ATLAS EX 60 System Power Supply

ATLAS EX 60 PSU

The ATLAS EX 60 psu Unit is located on the Cabinet and provides all system voltages. All voltages are fused on the ATLAS EX 60 psu.

LED	FUSE	VOLTAGE	DESCRIPTION
2	F2	-28.0 VDC	Key phone and SLP operating Voltage
5	F4	+5.0 VDC	Processor Voltage
3	F3	-70.0 VDC	SLP Ring Supply
4	F5	-24.0 VDC	External Battery Fuse
—	F1	-24.0 VDC	Battery Output Fuse
1	——	———	AC input

Backup Battery

The system power supply supports a backup battery package rated at 24 volts, 0.7amperes/hour. A trickle-charge maintains the battery at 95% efficiency, applies system cutover to battery when facility power is removed, and provides system shutdown when battery power falls below a specified level.

Attach batteries (24VDC) to the appropriate terminals. See Figure 19.

Keep the battery(s) dry and clean. Avoid damp wet areas or areas where the battery may be easily damaged. Wires should run from the battery(s) to the terminals on the ATLAS EX 60 PSU (pay particular attention to matching the positive connections).
Improper connection will damage the power supply. When operating from the battery, the system will automatically cut off the power supply from the battery when the voltage gets too low, so that the battery can be recharged.

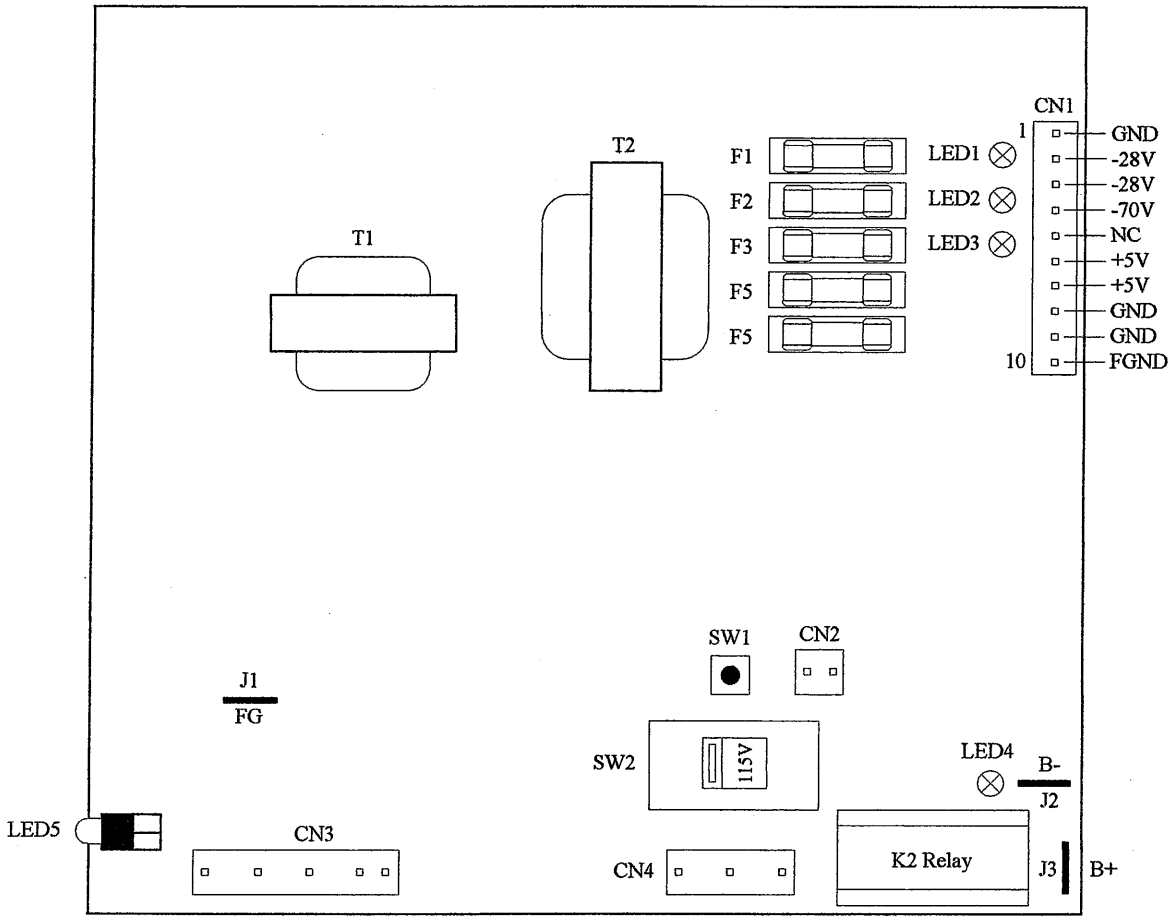

Figure 19 : ATLAS EX 60 System power supply

Switches/Connections

SW1	External Battery system boot switch
CN2	AC output on Transfermer
CN3	AC input
CN1	DC power cable**
CN4	AC input on Transfermer
J2 , J3	External Battery Connections
J1	Ground
SW2	AC Power switch interface (115 VAC or 230 VAC)

****Warning** – This cable is polarity sensitive and MUST NOT be REVERSED!!

CAUTION!!! To reduce the risk of or injury please note the following:

Do not dispose of the battery (s) in a fire. The cell may explode. Check with local codes for special disposal instructions.

Do not open or mutilate the battery(s). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.

Exercise care in handling the battery(s) in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery may overheat and cause burns.

Observe proper polarity orientation between the battery(s) and ATLAS EX 60 PSU.

Do not mix battery(s) of different sizes or from different manufacturers in this product.

The length of time system operation is maintained under battery power depends on battery capacity. Typical system support for the 24 Volt battery(s) is approximately one hour.

MEMORY BACKUP SWITCH

- The memory backup switch (SW2) is located on the bottom left side of the MBU Card (See Figure 1.)

Turning this switch ON will insure that the KSU will retain all stored programming in the event of a power outage.

- **ONCE THE** SYSTEM **IS INSTALLED, SET THE MEMORY BACKUP SWITCH TO THE ON** POSITION to prevent the loss of stored information.
- When the Memory Back-up switch is ON, the LED on the MBU Card (LED 1) will be lit.

9911207000
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ATLAS EX

DIGITAL BUSINESS SYSTEM

INTRODUCTION AND PROGRAMMING

KEY SYSTEM US
WEST PALM BEACH, FL

NOTICE

The ATLAS EX 30/60 comes with two manuals. This manual contains a step-by-step explanation of the installation process, with diagrams. The *Programming Guide* introduces the programming process by which the system can be programmed through the Digital phones.

The procedures and methods provided in this manual have been prepared in a step-by-step manner to assist the installer in planning and performing the installation task, system operation and feature operation.

The information contained in this document is believed to be correct and accurate in all respects. The information contained in this document is subject to change without notice. Periodic changes may be made to the information contained in this document without any obligation to notify any such persons of such changes. No responsibility is assumed for any errors or omissions in this document.

The adjustments and settings mentioned in this manual should be carried out strictly by personnel who have been trained for the operation of this equipment and have also received instructions in regard to the safe handling of electrical equipment.

While this device is designed to be reasonably secure against intrusions from fraudulent callers, it is by no means invulnerable to fraud. Therefore, no expressed or implied warranty is made against such fraud.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

1. Remain on the line and briefly explain to the dispatcher the reason for the call.
2. Perform such activities in the off-peak hours; such as early morning or late evenings.

Protection of this equipment from hazardous voltages is the responsibility of the customer / owner of the equipment.

TABLE OF CONTENTS

PROGRAMMING INTRODUCTION

The *Programming Guide* introduces the step by step process for programming the system. Programming is divided into two parts: Hardware and Software.

Hardware Programming involves the use of the memory backup power switch to clear the memory and to load factory default data, and the setting of system DIP switches to effect proper system operation.

Software Programming involves the use of a keyphone to change the default data as defined by the customer's needs. The changes are derived from a plan detailing what the customer wants the System to do.

The process of programming the system is greatly simplified with a clearly detailed plan of the customers needs, laid out in a manner that is easily understood. If this information is not readily available and clearly detailed, it must be done before beginning the default data changes.

Notice

HARDWARE PROGRAMMING

Initial Setup

When the system is first installed, the System Default Programming Data must be loaded into memory. To ensure the default condition, the memory must be cleared before loading the data.

Memory Protection

The User Defined Programming Data is stored in memory as it is changed. A 3.0v CR2032 ensures the Data will be stored in memory when power is lost. The Battery is controlled by SW2 on the Main MCB-Unit.

SW2 on the MCB is used to select factory default or user defined programming upon power up. When the SW2 is in the "ON" position user defined memory is retained during a power failure

Load Default

To clear the memory and load the System Default Programming Data:

(a) Set the system power On/Off switch to OFF. The power indicator is off.

(b) Set SW2 to the "OFF" position **(ON MCB-Unit)**

(c) Set the system power On/Off switch to ON. The power indicator is on and the memory is cleared.

(d) After system power is restored and phones are operating normally return SW2 to the "ON" position.

Caution **: Remember to make sure SW2 is in the "ON" position to retain any program changes during loss of power.**

Function for SWITCH and LED

Refer to the Installation manual Figure 1 for the location of the SW1, SW2, SW3 and LED1 ~ LED7.

Switches	Description
SW1 Dip 1	Not Used
SW1 Dip 2	Ignore RTS & CTS on COM1
SW1 Dip 3	Not Used
SW1 Dip 4	Not Used
SW1 Dip 5	"ON" = Pulse Dialing , "OFF" = DTMF Dialing
SW1 Dip 6	"ON" = 3 Digit ICM numbering / "OFF" = 2 Digit ICM numbering
SW1 Dip 7	"ON "= A-Law , "OFF" = μ -Law
SW1 Dip 8	Not Used

Switches	Description
SW2	Memory Back up Switch
SW3	System Reset Switch

LED	Description
LED1	Memory Back-up Battery "ON" Indicator
LED2	CPU Status (Steady Flash indicates normal operation)
LED3	Digital Station active (ATLAS EX 30) Single Line Ports 9 – 12 Ring Busy status (ATLAS EX 60).
LED4	Monitoring RS232 Data communication.
LED5	Monitoring RS232 Data communication.
LED6	Monitoring RS232 Data communication.
LED7	Monitoring RS232 Data communication.

SOFTWARE PROGRAMMING

Software Programming involves changing the default data to make the system fully compatible with the needs of the user.

Note: Only one person at a time is allowed access to Software Programming.

LCD Display phone

A LCD Display phone is a required tool when programming the system.

List of Terms Used

C.O.	Central Office Line (Telephone line coming into the building).
Console	Attendant / Operator Station.
DTMF	Dual Tone Multi-Frequency. Trunk Type.
Keyphone	Key Telephone.
LCD	Liquid Crystal Display.
PABX	Private Automatic Branch Exchange.
Port	A Port for A Telephone.
Pulse	Pulse Dialing. Trunk Type.
SLP	Single-Line Telephone.
Trunk	Can be a C.O. Line or PABX Line.

Port and Station Numbering

Port numbering is fixed. The maximum number of Ports depends on the configuration of the system. The Port number is used when doing System Programming.

A Station Number is a flexible number assigned to each Port for intercom calling and identification. Station Numbers can be one to four digits and different length Station Numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 – 699, 1000-6999).

Note: Watch for Station Numbering conflicts. For example, if Station Number 20 is used, Station Numbers 200 – 209, 2000-2099 are unavailable.

Following is the default Station Numbering (using 8 port on the ATLAS EX 60 and 4 port on the ATLAS EX 30 station cards):

Card	Port No.	Station No.
Main-MCB	01-12	10-21
Exp. Card 1	13-20	22-29
Exp. Card 2	21-28	30-37
Exp. Card 3	29-36	38-45

ATLAS EX 60

Card	Port No.	Station No.
Main-MCB	01-08	10-17
Exp. Card 1	09-12	18-21
Exp. Card 2	13-16	22-25

ATLAS EX 30

See (Section2-Mode 70) Flexible Station Number Assignment for setting Station Numbers.

Note: ***No Error Message or Busy Signal will be given if duplicate Station Numbers are entered. For Station calling the first one found will be used.***

Trunk Numbering

Trunk Numbers are fixed by the position of the Trunk on the MCB and Expansion Card in the system.

Card	Trunk No.
Main-MCB	1-4
Exp. Card 1	5-8
Exp. Card 2	9-12
Exp. Card 3	13-16

ATLAS EX 60

Card	Trunk No.
Main-MCB	1-4
Exp. Card 1	5-8

ATLAS EX 30

Night Service - Day Mode and Night Mode Operation

For some features it is desirable to separate the operation of the system into Day Mode and Night Mode. The features include Trunk Ringing, Toll Plans, and External Call Forwarding.

Day Mode and Night Mode are used for Day and Night operation, respectively when the user's requirements are generally very different for the affected features. The Day Mode and Night Mode transfer times are set and controlled by the Console.
Refer to the ***Users' Guide*** for more information to switch between Day and Night Service.

System Programming

Accessing Programming

Access to Programming is protected by the use of a password. Only one user can enter programming at a time.

There are three ways to enter System Programming.

1. **Entering the Master Password from the Console.**
2. **Entering the System Password from the Console or from any Display phone, which has Programming Rights.**
3. **Entering the System Password as an account number while on an outside Trunk Call from the Console, or from any Display phone, which has Programming Rights.**

Any time the Busy Signal is received when attempting to access Programming, it means the attempt was unsuccessful. There are four possible reasons for an unsuccessful access:

1. **Pressing the wrong key.**
2. **Entering an incorrect password.**
3. **Using a keyphone, which is not the current Console or does not have Programming Rights.**
4. **Another system user is already accessing Programming.**

Entering Password

There are two passwords for System Programming: Master and System.

Master Password

The Master Password allows the current Console to access System Programming. To enter System Programming from the Console using the Master Password, press:

[PROG-PROG-DATA-DATA-6-HOLD]

System Password

The System Password allows the Console or any Display phone with (Section 2-Mode 12) Programming Rights to access System Programming. See (Section 3-Mode 01) System Password for setting the System Password. The Default password is 123.

To access System Programming from any Display phone, press:

[PROG-PROG-1-2-3-HOLD]

Pressing the PROG key lights the PROG lamp. Accessing System Programming starts the PROG lamp flashing. If the Busy Signal is received, press RLS and start again.

Entering System Programming while on a Trunk Call

To access System Programming **while on a Trunk Call**, press:

[MSG-1-2-3-PROG]

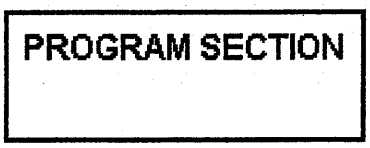
Accessing System Programming starts the PROG lamp flashing.

Note: When the RLS key is pressed to exit from System Programming, the outside Trunk line will be released.

Selecting a Program Section

Programming is divided into 3 separate Sections, each Section contains Modes 01-99 (not all modes are used).

After accessing Programming, a Section must be selected to change a Mode. The LCD display prompts for a Section number.

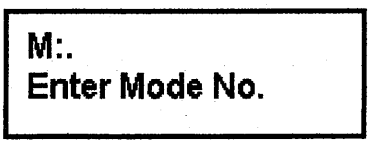


1 = Trunk Programming

2 = Station Programming

3 = System Programming

After selecting a Program Section, a 2-digit Mode number must be selected to change default data. The LCD display prompts for a Mode number.



The dot on the LCD display is a prompt for entering a digit. If an invalid digit or mode number is entered a Busy Signal is returned.

Changing to a Different Mode

After a Mode has been selected, press DATA to change to a different Mode. This returns to a LCD display prompt for entering a Mode number.

Changing to a Different Programming Section

When in a Program Section, Press DATA 2 times to select another Program Section.

Exiting from System Programming

To exit from System Programming, press RLS, the Keyphone goes idle. System Programming is now available for others to use. ***Make sure any changes to a Mode have been saved before exiting from System Programming. Press HOLD to save changes.***

Using Programming Keys

Some keys on the Keyphone have a special function during System Programming. The keys and functions are listed below. Some keys also have a special function for a particular Mode; they are explained in the description of the applicable Mode.

KEY	FUNCTION
DATA	To select a new Mode or Section
MSG	To set or Yes
FLASH	To clear existing value or No
MIC	To scroll backward
TSF	To scroll forward
HOLD	To save changed Data
RLS	To exit System Programming
CONF	To make change system wide

Saving a Change

Press HOLD to save a change after new information is entered. An " * " in the top left-hand corner of the LCD display confirms the saved change.

Press HOLD to save change.

```
*:01  01   C.O.
TRUNK TYPE
```

Note: In Section 1 Mode 01, press CONF instead of HOLD will save the change to all the Trunks at the same time.

Entering a Station Number instead of Port Number

Where System Programming requires a Port Number to be entered, a Station Number can be entered instead. To enter a Station Number, press the PROG key and then enter the Station Number, System will convert to Port Number. Once a valid Station Number has been entered, proceed with the next step.

Examples:

Enter Port Number

E.g. Press PROG then enter Station Number

```
M:02
  ST:
```

Note: A Station Number saved as data is shown as the corresponding Port Number.

Getting a Busy Signal

Anytime a Busy Signal is returned, an invalid key or operation was attempted.

To recover from an error when in System Programming, press DATA. The LCD display will prompt for a new Mode number.

TRUNK PROGRAMMING SECTION

TABLE OF CONTENTS

Introduction

System Programming is divided into three separate sections for ease of access. The sections are Trunk Programming Section, Station Programming Section, and System Programming Section.

Trunk Programming Section

Trunk Programming Section has been grouped into categories.

- Trunk Class-of-Service
- Trunk Specifications
- Private Lines
- Trunk Hunt Groups
- DNIS Groups
- Trunk Ringing
- External Call Forwarding
- Trunk Dial Operation
- SMDR Operation
- Forced Account Codes

Trunk Numbers

Trunk Numbers are fixed in the system.

For ease of operation for the Station user, Trunk numbers are displayed as 1 - 16.

Systems can have up to 16 Trunks, Trunks 01 - 09, use **0** at the start when using Trunk numbers in System Programming. Dial 77,tk to access a Trunk requires a 0 only when more than 8 Trunks are installed in the System.

Trunk Class-of-Service

Trunk Class-of-Service is used to define the operation of individual Trunks.

(Mode 01) Trunk Type

The system is normally connected directly to C.O. Lines but can be set to work behind another PABX. When a Trunk is set as a PABX Line the PABX Trunk Access Code will be ignored for Toll Restriction, and will not be shown on the SMDR output.

See (System Programming Section - Mode 77) PABX Trunk Access Code for setting the PABX Trunk Access Code.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **01**

```
M:01 .
TRUNK TYPE
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 3

```
M:01 03      C.O.
TRUNK TYPE
```

Step 4: Press **MSG** for PABX or **FLASH** for C.O.

e.g. Set to PABX line

```
M:01 03      PABX
TRUNK TYPE
```

Step 5: Press **HOLD** to save change.

```
*:01 03      PABX
TRUNK TYPE
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:02 04     PULSE
TRUNK SIGNAL
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to scroll backward to the previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:01 04      C.O.
TRUNK TYPE
```

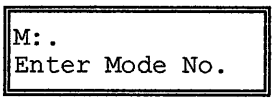
(Mode 02) Trunk Signal Type

Each Trunk can be set for either DTMF or Pulse signalling. When a Trunk is connected to a Central Office (or PABX) which recognizes both DTMF and Pulse signalling, set the Trunk to DTMF. Set a Trunk to Pulse signalling only when Pulse is the only type of signalling recognized.

Refer to the *Easy Reference Guide* for how to change the signal type while dialing on a Trunk.

Programming Procedure:

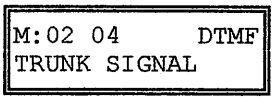
Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.



Step 2: Enter Mode **02**

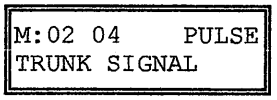
Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

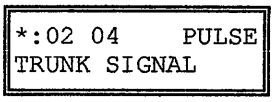


Step 4: Press **MSG** for DTMF or **FLASH** for Pulse.

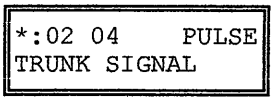
e.g. Set to Pulse Signaling



Step 5: Press **HOLD** to save change.

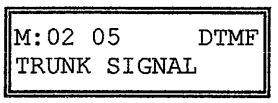


Step 6: (Optional) Press **CONF** to set ALL Trunks the same.



Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to scroll backward to the previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk



(Mode 03) Centrex Trunk Operation

Each Trunk can be set to support Centrex Trunk operation for Single-Line Telephones.
(**MSG** = Yes = Centrex)
When set for Centrex operation, Single-Line Telephones can do a Flash on a Trunk by putting the Trunk on Hold then immediately dial a 6 to reaccess the Trunk.

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Centrex Trunk Operation.

(Mode 04) Loop Supervision Disconnect

Each Trunk can be set to support Loop Supervision Disconnect operation for automatic termination of Trunk calls by the Central Office exchange.
(**MSG** = Yes = Loop Supervision Disconnect)

Note: The facility used by Loop Supervision Disconnect is supplied by the Central Office exchange and is not available to every exchange (or country).

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Loop Supervision Disconnect.

(Mode 05) Caller ID Name

When using Caller ID for identification on Incoming Calls, each Trunk can be set to display either the number or name for Keyphones.
(**MSG** = Yes = Caller ID Name, **FLASH** = No = Caller ID Number)

The Caller ID information is shown on the LCD display of the Keyphone and when printing Incoming SMDR Call Records.

Note: The facility used for Caller ID is supplied by the Central Office exchange and may not be able to always supply either number or name (not available in every country).

Refer to the *Installation Guide* for more information on using Caller ID.
Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Caller ID Name.

(Mode 06) Ring-back Tone on Transfer

Each Trunk can be set to give Ring-back Tone in place of music on being transferred to a Station. (**MSG** = Yes = Ring-back on Transfer, **FLASH** = No = Music)

See (Trunk Programming Section - Mode 37) Trunk Music Source for how to set the music source for a Trunk on hold.

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Ring-back Tone on Transfer.

(Mode 07) Disable Trunk

Each Trunk can be disabled. Disable Trunk is used to restrict access to an unconnected Trunk. Once disabled, the Trunk can not be accessed and it will not ring for an Incoming Call. It can also be used to temporarily disable a bad Trunk.
(**MSG** = Yes = Disable Trunk, **FLASH** = No = Normal)

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for sett ing Disable Trunk.

(Mode 08) +3dB Trunk Receive Gain

Each Trunk can be programmed for +3dB receive gain for increased volume. It is recommended for use where the Central Office experiences low volume conditions. This option is also effective in noisy environments.
(**MSG** = Yes = +3dB Gain, **FLASH** = NO = 0dB Gain)

Programming Procedure:
See (Trunk Programming Section – Mode 02) Trunk Signal Type and follow the programming procedure for setting +3dB Trunk Receive Gain.

(Mode 10) Loud Bell 1 - Day

There are four zones available for Loud Bell operation. Each Trunk can be set to ring a Loud Bell for an Incoming Call for either Day Mode or Night Mode. The Loud Bell will ring immediately using the standard Trunk Ring cadence.

Each Trunk can be set to ring Loud Bell 1 for an Incoming Call during Day Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Refer to the *Installation Guide* for more information on connecting a Loud Bell.

See (System Programming Section - Mode 40) External Relay Control for how to set an External Relay to work with a Loud Bell.

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Loud Bell 1 - Day.

(Mode 11) Loud Bell 1 - Night

Each Trunk can be set to ring a Loud Bell 1 for an Incoming Call during Night Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 12) Loud Bell 2 - Day

Each Trunk can be set to ring Loud Bell 2 for an Incoming Call during Day Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 13) Loud Bell 2 - Night

Each Trunk can be set to ring a Loud Bell 2 for an Incoming Call during Night Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 14) Loud Bell 3 - Day

Each Trunk can be set to ring Loud Bell 3 for an Incoming Call during Day Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 15) Loud Bell 3 – Night

Each Trunk can be set to ring a Loud Bell 3 for an Incoming Call during Night Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 16) Loud Bell 4 – Day

Each Trunk can be set to ring Loud Bell 4 for an Incoming Call during Day Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 17) Loud Bell 4 – Night

Each Trunk can be set to ring a Loud Bell 4 for an Incoming Call during Night Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:
See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 18) Deny Trunk Transfer

Each Trunk can be denied from being transferred to another Station. There are situations when trunks have a dedicated purpose and it is undesirable to allow the trunk to be transferred.
(**MSG** = Yes = Deny Transfer, **FLASH** = NO = Allow Transfer)

Programming Procedure:
See (Trunk Programming Section – Mode 02) Trunk Signal Type and follow the programming procedure for setting Deny Trunk Transfer.

(Mode 19) +3dB Trunk Transmit Gain

Each Trunk can be programmed for +3dB transmit gain for increased volume. It is recommended for use where the Central Office requires higher volume conditions. This option is also effective in noisy environments.
(**MSG** = Yes = +3dB Gain, **FLASH** = NO = 0dB Gain)

Programming Procedure:
See (Trunk Programming Section – Mode 02) Trunk Signal Type and follow the programming procedure for setting +3dB Trunk Transmit Gain.

(Mode 20) SMDR Incoming

The normal SMDR Call Record output shows only the outgoing calls. Incoming Calls can also be set to print. (**MSG** = Print Incoming Calls)

Refer to the *Installation Guide* for more information on the SMDR.

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting SMDR to print Incoming Calls.

(Mode 21) SMDR Transferred

The normal SMDR Call Record output shows only the outgoing calls. Trunk Calls can be set to print each time they are transferred. (**MSG** = Print for Transfer)
When set the Call duration is reset each time a Trunk is transferred.
Refer to the *Installation Guide* for more information on the SMDR.

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting SMDR to print transferred Trunk Calls.

(Mode 22) SMDR No Print

SMDR Call Records can be programmed on a per Trunk basis. When set to "No" for a particular Trunk SMDR records for that Trunk will not be sent to the serial port. (Port 2). (**MSG** = SMDR Printout)
Refer to the *Installation Guide* for more information on the SMDR.

Programming Procedure:
See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting SMDR to print transferred Trunk Calls.

(Mode 23) Print SMDR CLID

When set to print, only Incoming Calls that receive CLID information will be sent to the SMDR. This mode functions independent of (Mode 20) SMDR Incoming and (Mode 22) No Print.
(**MSG** = Yes = Print CLID, **FLASH** = NO = No Print)

Programming Procedure:
See (Trunk Programming Section – Mode 02) Trunk Signal Type and follow the programming procedure for setting Print SMDR CLID.

(Mode 24) FSK or DTMF Caller ID

Each Trunk can be set to FSK or DTMF Caller ID for an incoming call, but the Value of system default is FSK.
(**MSG** = Yes = DTMF, **FLASH** = No = FSK)

Programming Procedure:
See (Trunk Programming Section – Mode 02) Trunk Signal Type and follow the programming procedure for setting Ring-back Tone on Transfer.

Trunk Specifications

Trunk Specifications define the general operation of all Trunks.

(Mode 30) Trunk Names

Each Trunk can be assigned a Name up to eight characters long. The name is used in place of the Trunk number when making Trunk Calls, etc.

Keys:

1	QqZz
2	AaBbCc
3	DdEeFf
4	GgHhIi
5	JjKkLl
6	MmNnOo
7	PpQqRrSs
8	TtUuVv
9	WwXxYy
0	Space then complete range of characters.
*	Move left one space.
#	Move right one space.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **30**

```
M:30 .
TRUNK NAME
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 3 which has no name

```
M:30 03
TRUNK NAME
```

Step 4: Press **FLASH** to clear (any existing name).

```
M:30 03
TRUNK NAME
```

Step 5: Enter name by pressing the correct lettered key.

e.g. Press **5** five times for 'L' in Local 3.

```
M:30 03 L
TRUNK NAME
```

Step 6: Press # to move to next letter or* back to the previous letter.

e.g. Move to next letter

```
M:30 03 L
TRUNK NAME
```

Step 7: Enter next letter.

e.g. Press **6** six times for 'o' in Local 3.

```
M:30 03 Lo
TRUNK NAME
```

Step 8: Repeat the above two steps until the Trunk name is entered.

Press **HOLD** to save change.

```
*:30 03 Local 3
TRUNK NAME
```

Step 9: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to scroll backward to the previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:30 04
TRUNK NAME
```

(Mode 31) Pulse Dialing Pulses per Second

Trunk Pulse Dialing can be set to either 10 pps or 20 pps.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [PROG-PROG-1-2-3-HOLD] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **31**

```
M:31          10
PULSE PER SECOND
```

Step 3: Press **MSG** for 10 pps or **FLASH** for 20 pps.

e.g. Set to 20 pps

```
M:31          20
PULSE PER SECOND
```

Step 4: Press **HOLD** to save change.

```
*:31          20
PULSE PER SECOND
```

(Mode 32) Pulse Dialing Break / Make Ratio

Trunk Pulse Dialing can use either a 60 / 40 or 67 / 33 Break / Make Ratio.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **32**

```
M:32          60/40
B/M RATIO
```

Step 3: Press **MSG** for 67 / 33 or **FLASH** for 60 / 40

e.g. Set to 67 / 33 pps

```
M:32          67/33
B/M RATIO
```

Step 4: Press **HOLD** to save change.

```
*:32          67/33
B/M RATIO
```

(Mode 33) Trunk Flash Time

The Flash Time used on Trunks can be set from 50 ms to 2550 ms (n x 10 ms).

When the Trunk Flash Time is used for Redial it is set for a duration which will guarantee the termination of the Trunk Call.

When the Trunk Flash Time is used for Centrex Trunk Operation it is set for a shorter period then the minimum Flash time required for terminating a Trunk Call.

Note: The facility used for Centrex operation is supplied by the Central Office exchange and is not available to every exchange (or country).

See (Trunk Programming Section - Mode 03) Centrex Trunk Operation for how to set a Trunk for Centrex operation.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **33**

e.g. Currently set to 1800 ms

```
M:33          180
TRUNK FLASH TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:33            0
TRUNK FLASH TIME
```

Step 4: Enter new Flash Time **5 - 255**

e.g. Set to 1200 ms (n = 120)

```
M:33          120
TRUNK FLASH TIME
```

Step 5: Press **HOLD** to save change.

```
*:33          120
TRUNK FLASH TIME
```

- **Note:** The minimum Trunk Flash Time is 50 ms (n = 5), and the maximum time is 2550 ms (n = 255).

(Mode 34) Trunk Pause Time

The Pause Time used on Trunks can be set from 500 ms to 2550 ms (n x 10 ms).

The Trunk Pause Time is used with Redial, Auto Redial, and Speed Dial. It is the delay after accessing a Trunk before automatic dialing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **34**

e.g. Currently set to 1500 ms

```
M:34          150
TRUNK PAUSE TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:34            0
TRUNK PAUSE TIME
```

Step 4: Enter new Pause Time **50 - 255**

e.g. Set to 1800 ms (n = 180)

```
M:34          180
TRUNK PAUSE TIME
```

Step 5: Press **HOLD** to save change.

```
*:34          180
TRUNK PAUSE TIME
```

Note: The minimum Trunk Pause Time is 500 ms (n = 50).

(Mode 35) DTMF Tone Length

The DTMF Tone Length can be set from 50 ms to 250 ms (n x 10 ms).

The DTMF Tone Length determines how quickly a Trunk generates DTMF dialing. Setting the DTMF Tone Length too short results in the Central Office exchange missing DTMF digits or ignoring the dialing completely.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **35**

e.g. Currently set to 70 ms

```
M:35              7
DTMF TONE LENGTH
```

Step 3: Press **FLASH** to clear (an existing length).

```
M:35              0
DTMF TONE LENGTH
```

Step 4: Enter new DTMF Tone Length **5 - 25**

e.g. Set to 80 ms (n = 8)

```
M:35              8
DTMF TONE LENGTH
```

Step 5: Press **HOLD** to save change.

```
*:35              8
DTMF TONE LENGTH
```

Note: The minimum DTMF Tone Length is 50 ms (n = 5), and the maximum is 250 ms (n = 25).

(Mode 36) Ring Pause Time

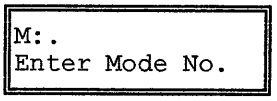
The Ring Pause Time used on Trunks can be set from 2000 ms to 6000 ms (n x 10 ms).

The Ring Pause Time is the maximum time, after a ring pulse, that the system waits for the next ring pulse. If this time lapses the system will clear ringing for the unanswered incoming Trunk call.

The Ring Pause Time allows for differences in ring cadences used by different Central Office exchanges that may have 2, 3, 4, or even 5 seconds between ring cycles. Setting the Ring Pause Time too low will result in the ringing for the incoming Trunk call being cleared before the next ring pulse.

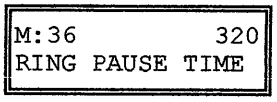
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

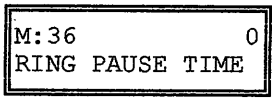


Step 2: Enter Mode **36**

e.g. Currently set to 3.2 seconds

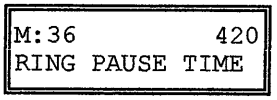


Step 3: Press **FLASH** to clear (an existing time).

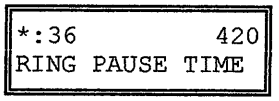


Step 4: Enter new Pause Time **200 - 600**

e.g. Set to 4.2 seconds (n = 420)



Step 5: Press **HOLD** to save change.



Note: The minimum Ring Pause Time is 2000 ms (n = 200).

(Mode 37) Trunk Music Source (ATLAS EX 60 only)

There are two music sources available to a Trunk on hold, one internal and one external. The external music source require a device to be connected to the system.

Refer to the *Installation Guide* for more information on connecting an External Music Source.

See (Trunk Programming Section - Mode 06) Ring-back Tone on Transfer for how to set Ring-back Tone in place of music on a Trunk being transferred to a Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **37**

```
M:37 .
TK MUSIC SOURCE
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

```
M:37 04          1
TK MUSIC SOURCE
```

Step 4: Press **1** for internal, **2** for external 1.

e.g. Set to External Music Source 1

```
M:37 04          2
TK MUSIC SOURCE
```

Step 5: Press **HOLD** to save change.

```
*:37 04          2
TK MUSIC SOURCE
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:37 04          2
TK MUSIC SOURCE
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:37 05          1
TK MUSIC SOURCE
```

Private Lines

(Mode 40) Private Line Assignment

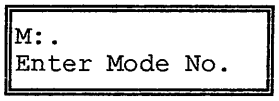
Each Trunk can be set as a Private Line for up to eight Stations. Only the set Stations can access a Private Line unless Private Line Access is set to open.

Incoming Calls for a Private Line will ring only the assigned Flexible Ring Stations and the assigned Station Hunt Group for that Trunk (they do not need to be assigned to the Private Line). However, if the first position of the Private Line Assignment for the Trunk is vacant, the Private Line will ring as a normal Trunk.

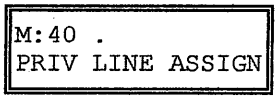
See (Trunk Programming Section - Mode 67) Flexible Ring - Day and (Trunk Programming Section - Mode 69) Flexible Ring - Night for setting what Station Ports will ring for each Private Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

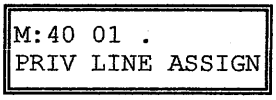


Step 2: Enter Mode **40**



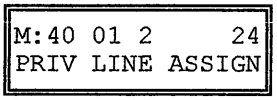
Step 3: Enter Trunk number **01- 16**

e.g. Trunk 1

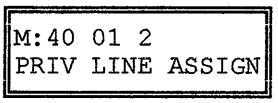


Step 4: Enter a memory position 1 - 8. Note: The memory position is a counter to Keep track of how many ports have been entered, up to 8 ports can be assigned per Trunk.

e.g. The second position is Port 24



Step 5: Press **FLASH** to clear (any existing Station Port).



Step 6: Enter new Station Port number **01 - 44**

e.g. Set to Station Port 21

```
M:40 01 2      21
PRIV LINE ASSIGN
```

Step 7: Press **HOLD** to save change.

```
*:40 01 2      21
PRIV LINE ASSIGN
```

Step 8: (Optional) Press **TRF** to move to the next memory position or **MIC** to scroll backward. Repeat from Step 6.

e.g. Move to next position Port 025
is the third Station Port.

```
M:40 01 3      25
PRIV LINE ASSIGN
```

TT-Trunk No. **(01-16)**
P - Position No. **(1-8)**
XX- Station Port **(01-44)**

```
M:40 TT P      XX
PRIV LINE ASSIGN
```

(Mode 41) Private Line Access

Access to Trunks assigned as Private Lines is normally restricted to the Stations assigned to the Private Line. Private Line access can be set open.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **41**

```
M:41 .
PRIV LINE ACCESS
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 1

```
M:41 01    CLOSED
PRIV LINE ACCESS
```

Step 4: Press **MSG** for Open or **FLASH** for Closed.

e.g. Open Private Line access

```
M:41 01      OPEN
PRIV LINE ACCESS
```

Step 5: Press **HOLD** to save change.

```
*:41 01      OPEN
PRIV LINE ACCESS
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:41 01      OPEN
PRIV LINE ACCESS
```

Step 7: (Optional) Press **TRF** to move to the next Trunk or **MIC** to scroll backward. Repeat from Step 6.

e.g. Move to next Trunk

```
M:41 02      OPEN
PRIV LINE ACCESS
```

(Mode 42) Private Line - Common Ring Day

When in Day Mode, Incoming Calls on Private Lines can be set to also ring the Common Ring Day Stations.

See (Trunk Programming Section - Mode 74) Common Ring - Day and (Trunk Programming section - Mode 76) Common Ring - Night for setting Common Ring Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **42**

```
M:42 .
PRIV DAY RING
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

```
M:42 04          NO
PRIV DAY RING
```

Step 4: Press **MSG** for Ring (Yes) or **FLASH** for Not Ring (No).

e.g. Set to ring Common Ring Day Stations.

```
M:42 04         YES
PRIV DAY RING
```

Step 5: Press **HOLD** to save change.

```
*:42 04         YES
PRIV DAY RING
```

Step 6: Press **CONF** to set ALL Trunks the same.

```
*:42 04         YES
PRIV DAY RING
```

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:42 05         YES
PRIV DAY RING
```

(Mode 43) Private Line - Common Ring Night

When in Night Mode, Incoming Calls on Private Lines can be set to also ring the Common Ring Night Stations.

See (Trunk Programming Section - Mode 74) Common Ring - Day and (Trunk Programming section - Mode 76) Common Ring - Night for setting Common Ring Stations.

Programming Procedure:
See (Trunk Programming Section - Mode 42) Private Line - Common Ring Day and follow the programming procedure for setting Common Ring - Night to ring for Private Lines.

(Mode 44) Private Line Pickup

Normally, only Stations that can access a Private Line can pickup a ringing Private Line. Private Line Pickup can be allowed by all Stations.

See (Station Programming Section - Mode 02) Call Pickup for how to set Call Pickup for Stations.

Programming Procedure:
See (Trunk Programming Section - Mode 42) Private Line - Common Ring Day and follow the programming procedure for setting Private Line Pickup.

(Mode 45) Private Line to Voice Mail

When a Trunk is set as a Private Line and it transfer or hold recalls to Voice Mail it can be set to use the Station set as the first Private Line Station as the destination Voice Mail Box. This function works only with Voice Mail units using SMDI.
(**MSG** = Yes = Use first Private Line Station, **FLASH** = NO = normal)

Programming Procedure:
See (Trunk Programming Section – Mode 42) Private Line – Common Ring Day and follow the programming procedure for setting Private Line to Voice Mail.

Trunk Hunt Groups

Trunk Hunt Groups are used to set the order and priority of accessing Trunks and keep incoming calls away from outgoing calls. Trunk Hunt Groups allow local and long distance Trunks to be grouped separately. Redial, Auto Redial, Speed Dial, and Automatic Route Selection all use Trunk Hunt Groups to select Trunks.

(Mode 50) Trunk Hunt Group Programming

The system has eight Trunk Hunt Groups (1 - 8) which are used for Automatic Trunk Selection. Redial, Speed Dial, Auto Redial, and External Call Forwarding all use the Trunk Hunt Group assigned to the Station.

Note: Remove all unused Trunks from the Trunk Hunt Groups.

Each Trunk Hunt Group can have the maximum number of Trunks available for the system assigned to it.

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station.

See (System Programming Section - Mode 16) Trunk Hunt Group Access Code for how to set the Access Code for assessing a Trunk Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **50**

```
M:50 .
TRUNK HUNT GROUP
```

Step 3: Enter Trunk Hunt Group number **1 - 8**

e.g. Trunk Hunt Group 2

```
M:50 2 .
TRUNK HUNT GROUP
```

Step 4: Enter a memory position number **01- 64** **Note:** The memory position is a counter to keep track of how many Trunks have been entered, up to 64 Trunks can be assigned per Trunk Group.

e.g. The fourth position is Trunk 4

```
M:50 2 04       4
TRUNK HUNT GROUP
```

Step 5: Press **FLASH** to clear (an existing Trunk).

```
M:50 2 04
TRUNK HUNT GROUP
```

Step 6: Enter new Trunk number **01 - 16**

e.g. Set to Trunk 12

```
M:50 2 04      12
TRUNK HUNT GROUP
```

Step 7: Press **HOLD** to save change.

```
*:50 2 04      12
TRUNK HUNT GROUP
```

Step 8: Press **TRF** to scroll forward to next memory position or **MIC** to scroll backward to previous memory position. Repeat from Step 5.

e.g. Move to next position
Trunk 5 is the fifth Trunk
In the Group.

```
M:50 2 05       5
TRUNK HUNT GROUP
```

(Mode 51) Automatic Trunk Hunt Group Access

When the Trunk Hunt Group Access Code (9 or 0), either the Trunk Hunt Group assigned to the Station is automatically used, or a second digit (1 - 8) must be dialed to specify which Trunk Hunt Group to use.

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station.

See (System Programming Section - Mode 16) Trunk Hunt Group Access Code for how to set the Access Code for assessing a Trunk Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **51**

```
M:51                NO
AUTO TRUNK GROUP
```

Step 3: Press **MSG** for Automatic Access (Yes) or **FLASH** for No.

e.g. Set to use Automatic Trunk Hunt Group Access.

```
M:51               YES
AUTO TRUNK GROUP
```

Step 4: Press **HOLD** to save change.

```
*:51               YES
AUTO TRUNK GROUP
```

(Mode 52) Terminal Trunk Hunt Group Access

Trunks are always accessed from a Trunk Hunt Group starting at the first position of the Trunk Hunt Group and accessing the first available idle Trunk found.

An alternative to terminal access is distributed access where the Trunks are accessed in rotation.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **52**

```
M:52 .
TERMINAL TK ACC
```

Step 3: Enter Trunk Hunt Group number **1 - 8**

e.g. Trunk Hunt Group 2

```
M:52 2          YES
TERMINAL TK ACC
```

Step 4: Press **MSG** for Terminal Access (Yes) or **FLASH** for Distributed Access (No).

e.g. Set to use distributed Access

```
M:52 2           NO
TERMINAL TK ACC
```

Step 5: Press **HOLD** to save change.

```
*:52 2           NO
TERMINAL TK ACC
```

Step 6: (Optional) Press **CONF** to set ALL Trunk Hunt Groups the same.

```
*:52 2           NO
TERMINAL TK ACC
```

Step 7: (Optional) Move to next Group. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk Hunt Group

```
M:52 3           NO
TERMINAL TK ACC
```

DNIS GROUPS

(Mode 55) DNIS Ring Delay

DNIS Ring Delay is used to delay ringing to the assigned Station or Console. This will ensure all DNIS digits are received from the Telephone Company before the Station or Console answers the ringing call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **55**

```
M:55              0
DNIS RING DELAY
```

Step 3: Enter Delay Time **1 - 9999**

e.g. DNIS Delay is set for 2 seconds

```
M:55              2
DNIS RING DELAY
```

Step 4: Press **HOLD** to save change.

```
*:55              2
DNIS RING DELAY
```

(Mode 56) DNIS Table Assignment

DNIS Table Assignment is used to assign each individual Trunk to a DNIS Translation table (Mode 57) for proper call routing.

There are 4 programmable tables in Mode 57.

This Mode should only be set on T-1 channels.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **56**

```
M:56 .
DNIS TABLE ASSGN
```

Step 3: Enter Trunk No. **01 - 16**

e.g. Trunk 09 is entered

```
M:56 09
DNIS TABLE ASSGN
```

Step 4: Enter Table Number **1 - 4**

e.g. Trunk 09 is assigned to DNIS table 2

```
M:56 09          2
DNIS TABLE ASSGN
```

Step 5: Press **HOLD** to save change.

```
*:56 09          2
DNIS TABLE ASSGN
```

(Mode 57) DNIS Translation Tables

DNIS Translation Tables are used to assign DNIS digits received from the Telco to an Extension or Station Group in the ATLAS EX-500 switch.

There are 4 programmable tables each containing 96 (bins) translation entries.

The digits received from the Telco must be either 4 or 7 digits in length.

DNIS calls that go unanswered can be routed to Voice Mail. See Section 2 Modes 87 and 89.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **57**

```
M:57 .
DNIS TABLES
```

Step 3: Enter Table No. **1 - 4**

e.g. DNIS Table 1 is entered.

```
M:57 1  .
DNIS TABLES
```

Step 4: Enter Bin No. **01 - 16**

e.g. Bin 01 is entered.

```
M:57 1  01
         Port
```

Step 5: Enter DNIS digits expected **4** or **7** digits.

e.g. 3446 is entered.

```
M:57 1  013446
         Port
```

Step 6: Press **HOLD** to save DNIS digits.

```
*:57 1  013446
        Port
```

Step 7: Enter Port No. **01 - 44** or Station Group **1 - 8** to ring for DNIS digits.

e.g. Port 17 is entered.

```
M:57 1  013446
        Port 17
```

Step 8: Press **HOLD** to save Port or Station Group.

e.g. Port 17 will ring when DNIS digits "3446" are received.

```
*:57 1  013446
        Port 17
```

Note: Press "**MSG**" key once to enter a Station Group No. **1 - 8**. When a DNIS call is ringing that Group it will find the 1st available Station in that group to ring.

If you press the "**MSG**" key twice "ALLGP" will appear. When the DNIS call rings the group, all stations in that group will ring simultaneously.

(Mode 58) DNIS Default Station Ring Assignment

DNIS Default Station Ring Assignment is used to assign an alternate Station to ring if the Telco sends DNIS digits that are not found in the translation tables.

Each DNIS Table (1 - 4) can be assigned an alternate Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **58**

```
M:58 .
DNIS DEFAULT ST
```

Step 3: Enter Table No. **1 - 4**

e.g. Table 1 is entered.

```
M:58 1
DNIS DEFAULT ST
```

Step 4: Enter Station Port Number **01 - 44.**

e.g. Station Port 34 is assigned for Table 1.

```
M:58 1          34
DNIS DEFAULT ST
```

Step 5: Press **HOLD** to save change.

```
*:58 1          34
DNIS DEFAULT ST
```

Trunk Ringing

Trunk Ringing has a wide range of different ring options which allow both basic ringing and custom ringing for individual Trunks.

Normal Trunk Ringing

1. After Console Ring Delay Time expires, ring Console if set to ring.
2. After Second Console Ring Delay Time expires, ring Second Console if set to ring.
3. Ring a Station from a Station Hunt Group if set to ring.
4. After Flexible Ring Delay Time expires, ring Flexible Ring Stations.
5. After Common Ring Delay Time expires, ring all Common Ring Stations.

(Mode 60) Console Ring Delay Time

The Console has a Delay Time before the Console will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **60**

```
M:60                0
CONS 1 DELAY
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:60                0
CONS 1 DELAY
```

Step 4: Enter new Console Ring Delay Time **0 - 9999**

e.g. Set Delay Time to 20 seconds

```
M:60               20
CONS 1 DELAY
```

Step 5: Press **HOLD** to save change.

```
*:60               20
CONS 1 DELAY
```

(Mode 61) Console Incoming Call Ringing

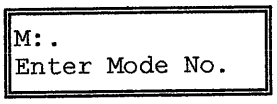
Incoming Calls can be set to ring at the Console (after the Console Ring Delay Time).

If the Console is set to Ring, it will be reminded when busy if Console Ring Busy Remind has been set. If set to Not Ring, it will still ring if set as a Flexible Ring Station or Common Ring Station.

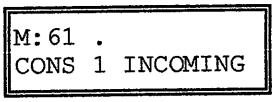
See (Trunk Programming Section - Mode 64) Common Ring Busy Remind for how to set the Common Ring Busy Remind Time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

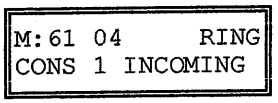


Step 2: Enter Mode **61**



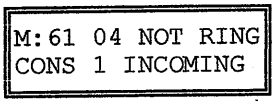
Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

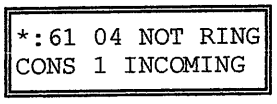


Step 4: Press **MSG** for Ring or **FLASH** for Not Ring.

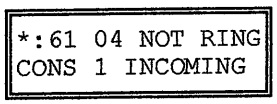
e.g. Set the Console to not ring



Step 5: Press **HOLD** to save change.

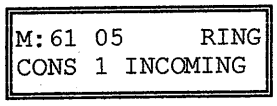


Step 6: (Optional) Press **CONF** to set ALL Trunks the same.



Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk



(Mode 62) Second Console Ring Delay Time

The Second Console has a Delay Time before the Second Console will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Programming Procedure:
See (Trunk Programming Section - Mode 60) Console Ring Delay Time and follow the programming procedure for setting Second Console Ring Delay Time.

(Mode 63) Second Console Incoming Call Ringing

Incoming Calls can be set to ring at the Second Console (after the Second Console Ring Delay Time).

If the Second Console is set to Ring, it will be reminded when busy if Console Ring Busy Remind has been set. If set to Not Ring, it will still ring if set as a Flexible Ring Station or Common Ring Station.

See (Trunk Programming Section - Mode 64) Common Ring Busy Remind for how to set the Common Ring Busy Remind Time.

Programming Procedure:
See (Trunk Programming Section - Mode 61) Console Incoming Call Ringing and follow the programming procedure to set Second Console Incoming Call Ringing.

(Mode 64) Console Off Hook Ringing

If the Console and Second Console are busy when an Incoming Call is trying to ring, an Off Hook Ring signal can be given that there is an Incoming Call.

The Console Off Hook Ring Time can be set from 1 to 9999 seconds. If set to 0 there will be no Off Hook Ringing.

The Console and Second Console will receive Off Hook Ringing when busy if the Consoles have been set to ring in Console Ring, Flexible Ring, or Common Ring.

See (Station Programming Section - Mode 10) Off Hook Ring Tone for how to restrict a Station Port from ringing when Off Hook.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **64**

e.g. The Remind Time is currently 30 seconds.

```
M:64              30
CONS BUSY REMIND
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:64               0
CONS BUSY REMIND
```

Step 4: Enter new Console Ring Busy Remind Time **1 - 9999**

e.g. Set Remind Time to 40 seconds.

```
M:64              40
CONS BUSY REMIND
```

Step 5: Press **HOLD** to save change.

```
*:64              40
CONS BUSY REMIND
```

(Mode 65) Trunk Station Hunt Group Ringing - Day

Each Trunk can be set to ring a Station Hunt Group for Incoming Calls.

A Station Hunt Group can be set for both Day Mode and Night Mode.

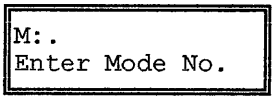
If one or more Stations from the assigned Station Hunt Group are already ringing due to being a Flexible Ring Station, Console, or Second Console, no extra Station from the Station Hunt Group will ring.

If set to 0 no Station Hunt Group will be used.

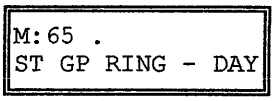
See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

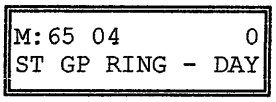


Step 2: Enter Mode **65**



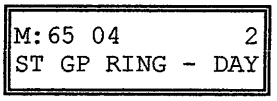
Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4 has no Station Hunt Group set.

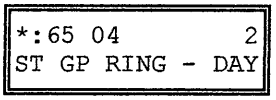


Step 4: Enter Station Hunt Group number **1- 8** or press **FLASH** to set to 0.

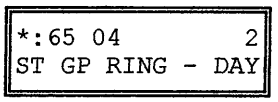
e.g. Set to Station Hunt Group 2



Step 5: Press **HOLD** to save change.



Step 6: (Optional) Press **CONF** to set ALL Trunks the same.



Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk
Trunk 5 has no Station Hunt Group set.

```
M:65 05          0
ST GP RING - DAY
```

(Mode 66) Trunk Station Hunt Group Ringing - Night

Each Trunk can be set to ring a Station Hunt Group for Incoming Calls when the system is in Night Mode.

A Station Hunt Group can be set for both Day Mode and Night Mode.

If one or more Stations from the assigned Station Hunt Group are already ringing due to being a Flexible Ring Station, Console, or Second Console, no extra Station from the Station Hunt Group will ring.

If set to 0 no Station Hunt Group will be used.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

See (Trunk Programming Section - Mode 65) Trunk Station Hunt Group Ringing - Day and follow the programming procedure to set Trunk Station Hunt Group Ringing - Night.

(Mode 67) Flexible Ring Delay Time - Day

Each Trunk can have a Delay Time before the Flexible Ring Stations will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.
The Flexible Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:
Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **67**

```
M:67 .
FLEX RING DELAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 12 has a 10 second Flexible Ring Delay Time.

```
M:67 12        10
FLEX RING DELAY
```

Step 4: Press **FLASH** to clear (an existing time).

```
M:67 12         0
FLEX RING DELAY
```

Step 5: Enter new Flexible Ring Delay Time.

e.g. Set Delay Time to 15 seconds for Trunk 12.

```
M:67 12        15
FLEX RING DELAY
```

Step 6: Press **HOLD** to save change.

```
*:67 12        15
FLEX RING DELAY
```

Step 7: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:67 12        15
FLEX RING DELAY
```

Step 8: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:67 13         0
FLEX RING DELAY
```

(Mode 68) Flexible Ring - Day

Each Trunk can ring up to sixteen selected Stations for an Incoming Call. These Stations are known as the Flexible Ring Stations. The Flexible Ring Stations will ring for an Incoming Call only after the Flexible Ring Delay Time expires.

Flexible Ring Stations can be set for Day Mode, Night Mode, or both.

If a Flexible Ring Station is busy, it will be reminded if Flexible Off Hook Ringing (Trunk Programming Section - Mode 72) has been set.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Flexible Ring for a Private Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **68**

```
M:68 .
FLEX RING - DAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 5

```
M:68 05 .
FLEX RING - DAY
```

Step 4: Enter a Flexible Ring Station memory position **01 – 16 Note:** The memory position is a counter to keep track of how many ports have been entered, up to 16 Station ports can be assigned to Ring per Trunk.

```
M:68 05 01
FLEX RING - DAY
```

Step 5: Press **FLASH** to clear an existing Station Port number.

```
M:68 05 01
FLEX RING - DAY
```

Step 6: Enter new Station Port number **01 - 44**

e.g. Set to Port 12

```
M:68 05 01    12
FLEX RING - DAY
```

OR Press **MSG** for Station Hunt Group **1 - 9**

e.g. Set to Station Hunt Group 9.

```
M:68 05 01STGP:9
FLEX RING - DAY
```

Step 7: Press **HOLD** to save change.

```
*:68 05 01    12
FLEX RING - DAY
```

Step 8: (Optional) Press TRF to scroll forward to next memory position or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next memory position
To set Port 021 to ring.

```
M:68 05 02
FLEX RING - DAY
```

(Mode 69) Flexible Ring Delay Time - Night

Each Trunk can have a Delay Time before the Flexible Ring Stations will ring for an Incoming Call when the system is in Night Mode.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

The Flexible Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:
See (Trunk Programming Section - Mode 67) Flexible Ring Delay Time - Day and follow the programming procedure to set Flexible Ring Delay Time - Night.

(Mode 70) Flexible Ring - Night

Each Trunk can ring up to sixteen selected Stations for an Incoming Call when the system is in Night Mode. These Stations are known as the Flexible Ring Stations. The Flexible Ring Stations will ring for an Incoming Call only after the Flexible Ring Delay Time expires.

Flexible Ring Stations can be set for Day Mode, Night Mode, or both.

If a Flexible Ring Station is busy, it will be reminded if Flexible Off Hook Ringing (Trunk Programming Section - Mode 72) has been set.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Flexible Ring for a Private Line.

Programming Procedure:

See (Trunk Programming Section - Mode 68) Flexible Ring - Day and follow the programming procedure to set Flexible Ring - Night.

(Mode 71) Stepped Ringing

The Flexible Ring Stations for a Trunk can be set to ring all at once or in a stepped pattern.

When Stepped Ringing is set for a Trunk, only one Flexible Ring Station will initially ring for an Incoming Call, an additional Flexible Ring Station will start ringing every six seconds. They will ring in the order set in (Trunk Programming Section - Mode 68) Flexible Ring - Day and (Trunk Programming Section - Mode 70) Flexible Ring - Night.
Stepped Ringing affects both Private Lines and normal Trunks.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **71**

```
M:71 .
STEPPED RINGING
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 2

```
M:71 02        NO
STEPPED RINGING
```

Step 4: Press **MSG** (Yes) for Stepped Ringing or **FLASH** (No) for normal.

e.g. Set Trunk to use Stepped Ringing.

```
M:71 02       YES
STEPPED RINGING
```

Step 5: Press **HOLD** to save change.

```
*:71 02       YES
STEPPED RINGING
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:71 02       YES
STEPPED RINGING
```

Step 7: (Optional) Press TRF to scroll forward to the next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:71 03        NO
STEPPED RINGING
```

(Mode 72) Flexible Off Hook Ringing

Flexible Ring Stations that are busy when an Incoming Call is ringing can be given a Ring signal that there is an Incoming Call.

The Flexible Off Hook Ring Time can be set from 1 to 9999 seconds. When set to 0 there will be no Off Hook Ringing.

The Console and Second Console will receive Off Hook Ringing only if (Trunk Programming Section - Mode 64) Console Off Hook Ringing has been set.

See (Station Programming Section - Mode 10) Off Hook Ring Tone for how to restrict a Station Port from receiving Off Hook Ringing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **72**

e.g. There is currently no Off Hook Ringing for Flexible Ring Stations.

```
M:72                0
FLEX BUSY REMIND
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:72                0
FLEX BUSY REMIND
```

Step 4: Enter new Flexible Off Hook Ring Time **1 - 9999**

e.g. Set Off Hook Ring Time to 60 seconds.

```
M:72               60
FLEX BUSY REMIND
```

Step 5: Press **HOLD** to save change.

```
*:72               60
FLEX BUSY REMIND
```

(Mode 73) Common Ring Delay Time - Day

Each Trunk can have a Delay Time before the Common Ring Stations will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.
The Common Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:
Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **73**

```
M:73 .
COMM RING DELAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 3 has a 15 second Common Ring Delay Time.

```
M:73 03        15
COMM RING DELAY
```

Step 4: Press **FLASH** to clear (an existing time).

```
M:73 03         0
COMM RING DELAY
```

Step 5: Enter new Common Ring Delay Time **0 - 9999**

e.g. Set Delay Time to 10 seconds for Trunk 3.

```
M:73 03        10
COMM RING DELAY
```

Step 6: Press **HOLD** to save change.

```
*:73 03        10
COMM RING DELAY
```

Step 7: (Optional) Press **CONF** to set ALL Trunks to the same Time.

```
*:73 03        10
COMM RING DELAY
```

Step 8: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:73 04         0
COMM RING DELAY
```

(Mode 74) Common Ring - Day

The system can ring up to twenty-four selected Stations for an Incoming Call. These Stations are known as the Common Ring Stations. The Common Ring Stations will ring for an Incoming Call only after the Common Ring Delay Time expires.

Common Ring Stations will ring for Incoming Calls on all Trunks. (Private Lines are a possible exception depending on how the Private Line is set up.)

Common Ring Stations can be set for Day Mode, Night Mode, or both.

If a Common Ring Station is busy it will be reminded if a Common Off Hook Ring Time has been set.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Common Ring for a Private Line.

See (Trunk Programming Section - Mode 68) Flexible Ring - Day and (Trunk Programming Section - Mode 70) Flexible Ring - Night for how to set Flexible Ring Stations.

See (Trunk Programming Section - Mode 77) Common Off Hook Ringing for how to make busy Common Ring Stations ring.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **74:**

```
M:74 .
COMM RING
```

Step 3: Enter a Common Ring Station memory position **01 – 24 Note:** The memory position is a counter to keep track of how many ports have been entered, up to 16 Station ports can be assigned to Ring per Trunk.

e.g. Set Ports 13, 14, 16, and 18 as Cdommon Ring Stations.

```
M:74 01
COMM RING - DAY
```

Step 4: Press **FLASH** to erase an existing Station Port number.

```
M:74 01
COMM RING - DAY
```

Step 5: Enter new Station Port number **01 - 44**

e.g. Set to Port 13.

```
M:74 01        13
COMM RING - DAY
```

OR Press **MSG** for Station Hunt Group **1 - 9**

e.g. Set to Station Hunt Group 1

```
M:74 01    STGP:1
COMM RING - DAY
```

Step 6: Press **HOLD** to save change.

```
*:74 01        13
COMM RING - DAY
```

Step 7: (Optional) Press **TRF** to scroll forward to next memory position or **MIC** to move backward to previous memory position. Repeat from Step 4.

e.g. Move to next position to set Port 14.

```
M:74 02
COMM RING - DAY
```

(Mode 75) Common Ring Delay Time - Night

Each Trunk can have a Delay Time before the Common Ring Stations will ring for an Incoming Call when the system is in Night Mode.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

The Common Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:

See (Trunk Programming Section - Mode 73) Common Ring Delay Time - Day and follow the programming procedure to set Common Ring Delay Time - Night.

(Mode 76) Common Ring - Night

The system can ring up to twenty-four selected Stations for an Incoming Call when the system is in Night Mode. These Stations are known as the Common Ring Stations. The Common Ring Stations will ring for an Incoming Call only after the Common Ring Delay Time expires.

Common Ring Stations will ring for Incoming Calls on all Trunks. (Private Lines are a possible exception depending on how the Private Line is set up.)

Common Ring Stations can be set for Day Mode, Night Mode, or both.

See (Trunk Programming Section - Mode 77) Common Off Hook Ringing for how to make busy Night Common Ring Stations ring.

A Station from a Station Hunt Group can also be set to ring. Only one Station from the Station Hunt Group will be set to ring. Other Stations in the Station Hunt Group will not be busy reminded.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Common Ring for a Private Line.

See (Trunk Programming Section - Mode 68) Flexible Ring - Day and (Trunk Programming Section - Mode 70) Flexible Ring - Night for how to set Flexible Ring Stations.

Programming Procedure:
See (Trunk Programming Section - Mode 74) Common Ring - Day and follow the programming procedure to set Common Ring - Night.

(Mode 77) Common Off Hook Ringing

Common Ring Stations that are busy when an Incoming Call is trying to ring can be given a Off Hook Ring signal that there is an Incoming Call.

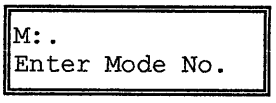
The Common Off Hook Ring Time can be set from 1 to 9999 seconds. If set to 0 there will be no Off Hook Ringing.

The Console and Second Console will be reminded only if (Trunk Programming Section - Mode 64) Console Off Hook Ring has been set.

See (Station Programming Section - Mode 10) Off Hook Ring Tone for how to restrict a Station Port from receiving Off Hook Ringing.

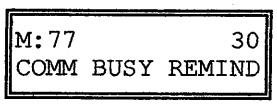
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

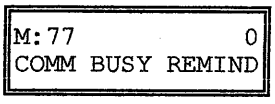


Step 2: Enter Mode **77**

e.g. The Off Hook Ring Time is currently 30 seconds.

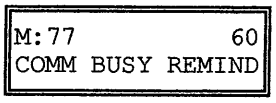


Step 3: Press **FLASH** to clear (an existing time).

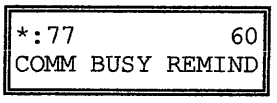


Step 4: Enter new Common Off Hook Ring Time.

e.g. Set Off Hook Ring Time to 60 seconds.



Step 5: Press **HOLD** to save change.



(Mode 78) Softkey Pattern for Trunk Ringing

When an Incoming Call rings a Station, the line appearance on the Keyphone can be either a quick flashing red or steady green to indicate ringing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **78**

```
M:78          RED
TK RING PATTERN
```

Step 3: Press **MSG** for Green or **FLASH** for Red.

e.g. Use green to show Incoming Call.

```
M:78        GREEN
TK RING PATTERN
```

Step 4: Press **HOLD** to save change.

```
*:78        GREEN
TK RING PATTERN
```

External Call Forwarding

There are two methods of Call Forwarding: External and Station.

External Call Forwarding can be set individually for each Trunk for Day Mode and for Night Mode.

External Call Forwarding to an External number is achieved by the use of Speed Dial bins.

After the External Call Forwarding Delay Time expires, a second Trunk is accessed, using Automatic Trunk Selection, and then the number in the assigned Speed Dial bin is dialed. After the External Call Forwarding Duration time expires, both Trunks are automatically released.

Incoming Calls cannot be Call Forwarded to an external number when the Station set to Call Forward is busy. Each Station can handle only ONE External Call Forwarding at a time.

Note: Ensure that the Speed Dial bin is not restricted for the Station that has to dial the number. Speed Dial bins above the (System Programming Section - Mode 63) Speed Dial Toll Restriction Break Point are NOT Toll restricted.

See (Station Programming Section) Station Call Forwarding for how to set Call Forwarding for individual Stations.

(Mode 80) External Call Forwarding Delay Time

A Delay Time can be set for Incoming Call ringing duration, before External Call Forwarding is executed.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **80**

e.g. There is no delay

```
M:80              0
EXT C/F DELAY
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:80              0
EXT C/F DELAY
```

Step 4: Enter new External Call Forwarding Delay Time **0 - 9999**

e.g. Set Delay Time to 15 seconds.

```
M:80             15
EXT C/F DELAY
```

Step 5: Press **HOLD** to save change.

```
*:80             15
EXT C/F DELAY
```

(Mode 81) External Call Forwarding - Day

Speed Dialing is used to store the number to be dialed for External Call Forwarding. A separate Speed Dial bin (01 - 09, 100 - 499) can be assigned to each Trunk for Day Mode, Night Mode, or both.

If set to 0 there will be no External Call Forwarding.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **81**

```
M:81 .
EXT C/F - DAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 18 is not External Call Forwarding.

```
M:81 18          0
EXT C/F - DAY
```

Step 4: Press **FLASH** to clear (an existing Speed Dial).

e.g. Set No Call Forwarding

```
M:81 18          0
EXT C/F - DAY
```

Step 5: Enter new Speed Dial bin (01 - 09, 100 - 499)

e.g. Set to Speed Dial bin 167

```
M:81 18        167
EXT C/F - DAY
```

Step 6: Press **HOLD** to save change.

```
*:81 18        167
EXT C/F - DAY
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or MIC to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk No Call Forwarding is set.

```
M:81 19          0
EXT C/F - DAY
```

(Mode 82) External Call Forwarding - Night

Speed Dialing is used to store the number to be dialed for External Call Forwarding. A separate Speed Dial bin (01 - 09, 100 - 499) can be assigned to each Trunk for Day Mode, Night Mode, or both.

Programming Procedure:
See (Trunk Programming Section - Mode 81) External Call Forwarding - Day and follow the programming procedure to set External Call Forwarding - Night.

(Mode 83) External Call Forwarding Duration

The External Call Forwarding Duration determines the length of the call before the Trunks are automatically released.

The call duration can be set from 1 to 9999 seconds. If set to 0 there will be no External Call Forwarding.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **83**

e.g. Call Duration is currently 180 seconds.

```
M:83          180
EXT C/F DURATION
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:83            0
EXT C/F DURATION
```

Step 4: Enter new Call Duration.

e.g. Set Call Duration 300 seconds.

```
M:83          300
EXT C/F DURATION
```

Step 5: Press **HOLD** to save change.

```
*:83          300
EXT C/F DURATION
```

Trunk Dial Operation

(Mode 85) Call Duration Warning Tone Time

When a Station is on an Outgoing Call an audible Warning Tone is given to the Station at a regular interval to indicate the duration of the call.

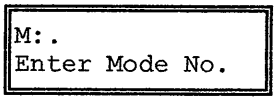
The time interval for the Warning Tone can be set from 30 to 9999 seconds.

See (Station Programming Section - Mode 08) Call Duration Warning Tone for how to set the Call Duration Warning Tone for individual Stations.

Warning: Do NOT set Call Duration Warning Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

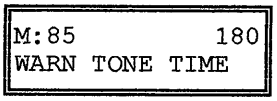
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

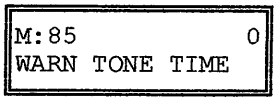


Step 2: Enter Mode **85**

e.g. Currently set to 180 seconds.

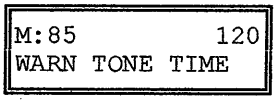


Step 3: Press **FLASH** to clear (an existing time).

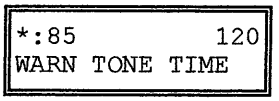


Step 4: Enter new Warning Tone Time **30 - 9999**

e.g. Set to 120 seconds.



Step 5: Press **HOLD** to save change.



(Mode 86) No Dial Time-out

A time duration can be set to limit Trunk access with no digits being dialed. The Trunk is released once the time has expired.

The No Dial Time can be set from 1 to 9999 seconds. If set to 0 there will be no Time-out.

Note: A Trunk can be accessed at the same time it is about to ring. This means the user connects with the Incoming Call but for the system it is an Outgoing Call. If this occurs when No Dial Time has been set, a digit has to be dialed, otherwise, the Trunk will be released once the No Dial Time has expired.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **86**

e.g. It is set for no Time-out.

```
M:86                0
NO DIAL TIME-OUT
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set to no Time-out

```
M:86                0
NO DIAL TIME-OUT
```

Step 4: Enter new No Dial Time **1 - 9999**

e.g. Set No Dial Time to 20 seconds

```
M:86               20
NO DIAL TIME-OUT
```

Step 5: Press **HOLD** to save change.

```
*:86               20
NO DIAL TIME-OUT
```

(Mode 87) Keyphone Trunk Dial Time

A time duration can be set to limit Keyphone dialing time on a seized Trunk at the start of a Trunk Call.

Once the time expires the Keyphone can not dial out on the Trunk.

The Keyphone Trunk Dial Time can be set from 1 to 9999 seconds. If set to 0 there will be no Dial Time limit.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **87**

e.g. Dial Time is currently 40 seconds.

```
M:87              40
KEY TK DIAL TIME
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set no Dial Time limit

```
M:87               0
KEY TK DIAL TIME
```

Step 4: Enter new Dial Time.

e.g. Set Dial Time to 25 seconds

```
M:87              25
KEY TK DIAL TIME
```

Step 5: Press **HOLD** to save change.

```
*:87              25
KEY TK DIAL TIME
```

SMDR Operation

The SMDR is used to output details of Call Records in ASCII format to a printer. The Call Records can also be used by a Call Accounting device, Inn Fone Front Desk package, or a Property Management System (PMS).

Incoming Calls, Transferred Calls, Intercom Calls, Appointment / Wake-up Calls can also be printed by the SMDR.

Refer to the *Installation Manual* on how to set up the SMDR.

(Mode 90) SMDR Minimum Call Duration

A Minimum Call Duration for Outgoing Calls being printed by the SMDR (Station Message Detail Recorder) can be set. Outgoing Calls of duration less then the minimum will not be printed.

The Minimum Call Duration can be set from 0 to 9999 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **90**

e.g. Minimum Time is currently 15 seconds.

```
M:90              15
SMDR MIN DURATON
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:90               0
SMDR MIN DURATON
```

Step 4: Enter new Minimum Call Duration **0 - 9999**

e.g. Set Minimum Time to 10 seconds

```
M:90              10
SMDR MIN DURATON
```

Step 5: Press **HOLD** to save change.

```
*:90              10
SMDR MIN DURATON
```

(Mode 91) SMDR Print Intercom Calls

The SMDR is used to output details of Call Records in ASCII format to a printer. Intercom Calls can also be printed by the SMDR.

Setting Intercom Calls to print will result in one record for each Intercom Call made on the system. This is normally only used for trouble shooting.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **91**

```
M:91              NO
INTERCOM CALLS
```

Step 3: Press **MSG** for Print or **FLASH** for No Print.

e.g. Set to printing Intercom Calls

```
M:91              YES
INTERCOM CALLS
```

Step 4: Press **HOLD** to save change.

```
*:91              YES
INTERCOM CALLS
```

(Mode 92) SMDR Print Appointment Calls

The SMDR is used to output details of Call Records in ASCII format to a printer. Appointment / Wake-up Calls can also be printed by the SMDR.

Setting Appointment / Wake-up Calls to print will result in one record for each Appointment / Wake-up Call made on the system. All three attempts to make a Wake-up Call will be shown. This is normally only used for Hotel operation to confirm the Wake-up Call was made.

The Daily Wake-up / Remind Call is not printed.

Programming Procedure:

See (Trunk Programming Section - Mode 91) SMDR Print Intercom Calls and follow the programming procedure to set SMDR Print Appointment Calls.

(Mode 93) SMDR Date Format

The SMDR is used to output details of Call Records in ASCII format to a printer. The date format for each record can be in a DD/MM or MM/DD format.

Incoming Calls, Transferred Calls, Intercom Calls, Appointment / Wake-up Calls when printed by the SMDR also use this format.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **93**

```
M:93          MM/DD
SMDR DATE FORMAT
```

Step 3: Press **MSG** for DD/MM or **FLASH** for MM/DD.

e.g. Set date to DD/MM format

```
M:93          DD/MM
SMDR DATE FORMAT
```

Step 4: Press **HOLD** to save change.

```
*:93          DD/MM
SMDR DATE FORMAT
```

Forced Account Code

(Mode 94) Forced Account Code

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

Forced Account Code can use either a length or a verification table to recognize account code numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **94**

```
M:94                NO
FORCE ACC CODE
```

Step 3: Press **MSG** (Yes) for Forced or **FLASH** (No) Not Forced.

e.g. Set to use Forced Account Code

```
M:94               YES
FORCE ACC CODE
```

Step 4: Press **HOLD** to save change.

```
*:94               YES
FORCE ACC CODE
```

(Mode 95) Forced Account Code Length

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

The account code length can be set from 1 to 6 digits. If set to 0 the Forced Account Code Table will be used to verify the account codes.

Note: The Forced Account Code Length must be set to 0 to use the Forced Account Code Table.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **95**

e.g. Account Code Length is set to 6 digits.

```
M:95                6
ACC CODE LENGTH
```

Step 3: Press **FLASH** to clear (an existing length).

```
M:95                0
ACC CODE LENGTH
```

Step 4: Enter new Account Code Length **0 - 6**

e.g. Set for 4 digit Account Codes

```
M:95                4
ACC CODE LENGTH
```

Step 5: Press **HOLD** to save change.

```
*:95                4
ACC CODE LENGTH
```

(Mode 96) Forced Account Code Table

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

The account code table can have up to 96 different account codes. Forced Account Code Length must be set to 0 to use the account code table to verify the account codes.

Note: The Forced Account Code Length must be set to 0 to use the Forced Account Code Table.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **96**

```
M:96 .
ACC CODE TABLE
```

Step 3: Enter memory position number **01 – 96 Note:** The memory position is a counter to keep track of how many Account codes have been entered, up to 96 Account codes can be assigned.

e.g. first Account Code

```
M:96 01   4728
ACC CODE TABLE
```

Step 4: Press **FLASH** to clear (an existing Account Code).

```
M:96 01
ACC CODE TABLE
```

Step 5: Enter new Account Code (up to 6 digits).

e.g. Set Account Code to 2881

```
M:96 01   2881
ACC CODE TABLE
```

Step 6: Press **HOLD** to save change.

```
*:96 01   2881
ACC CODE TABLE
```

Step 7: (Optional) Press **TRF** to scroll forward to next memory position or MIC to move backward to previous memory position. Repeat from Step 4.

e.g. Move to next Account Code

```
M:96 02   5532
ACC CODE TABLE
```

STATION PROGRAMMING SECTION

TABLE OF CONTENTS

Station Programming Section

System Programming is divided into three separate sections for ease of access. The sections are Trunk Programming Section, Station Programming Section, and System Programming Section.

Station Programming Section has been grouped into categories.

- Station Class-of-Service
- Console
- Operator Operation
- Station Hunt Groups
- Station
- Station Call Forwarding
- Single-line Telephone

Ports and Station Numbering

Station Port numbering is fixed by the position of the Port on the Station Card and the location of the Station Card in the system. The number of Station Ports depends on the configuration of the system. The Station Port number is used when doing System Programming.

A Station number is a flexible number assigned to each Station Port for intercom calling and identification. Station numbers can be one to four digits and different length Station numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 - 699, 1000 - 6999).

Note: Watch for Station numbering conflicts. For example, if Station number 20 is used, Station numbers 200 - 209 and 2000 - 2099 are unavailable.

The default Station numbering is set by System DIP switch 6. Refer to the *Hardware Programming* section for more on setting DIP switches.

Programming using Flexible Station Numbers

When System Programming requires a Station Port number to be entered, a Station number can be entered instead. The Station number can be used in two places: one is as an index parameter, the second is as the data value to be saved.

To enter a Station number, press the **PROG** key and then enter the Station number. Once a valid Station number has been entered, proceed with the next step.

Example:

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **04**

```
M:04
Make Paging Call
```

Step 3: Enter a Station number (instead of Port No.) Press **PROG + Station No.**

e.g. System automatically enters proper Port number 16.

```
M:04 16      YES
  ST:25   LCD
```

Proceed to next Step

Station Class-of-Service

Station Class-of-Service is used to define the operation of individual Station Ports.

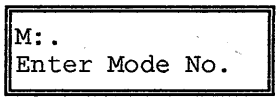
(Mode 01) Put Call on Hold

Each Station Port can be restricted from putting a Trunk or Intercom Call on hold. When a Station Port, which is restricted from putting a call on hold, presses the **HOLD** key or does a hook-flash, the Station Port remains with the call.

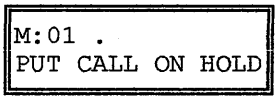
Warning: The Console, Operator, and Voice Mail ports need to put a call on hold to transfer a call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

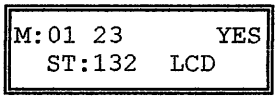


Step 2: Enter Mode **01**



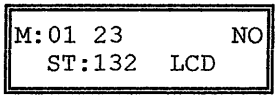
Step 3: Enter Station Port number **01 - 44**

e.g. Port 23 is Station 132.

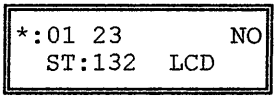


Step 4: Press **MSG** (Yes) for Put Call on Hold or **FLASH** (No) to restrict.

e.g. Set to restrict putting a call on hold.

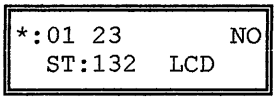


Step 5: Press **HOLD** to save change.



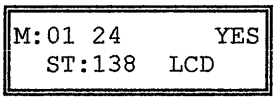
Step 6: (Optional) Press **CONF** to set ALL Station Ports the same. **Please note Warning.**

e.g. All Stations can not put a call on hold.



Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Station Port Port 24 can put a call on hold.



(Mode 02) Call Pickup

Each Station Port can be restricted from doing Call Pickup.
(**MSG** = Yes = Allow Call Pickup)

All three types : System Call Pickup, Group Call Pickup, and Directed Call Pickup are restricted.

Refer to the *Easy Reference Guide* for how to use Call Pickup from a Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Call Pickup.

(Mode 03) Receive Paging Calls

Paging Calls can be made through External Page Zones or over the speaker of idle Keyphones. Station Ports can be restricted from receiving Paging Calls.
(**MSG** = Yes = Receive Paging Calls)

Refer to the *Easy Reference Guide* for how to make a Paging Call from a Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Receive Paging Calls.

(Mode 04) Make Paging Calls

Paging Calls can be made through External Page Zones or over the speaker of idle Keyphones. Station Ports can be restricted from making a Paging Call.
(**MSG** = Yes = Make Paging Calls)

Refer to the *Easy Reference Guide* for how to make a Paging Call from a Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Make Paging Calls.

(Mode 05) Be Barged Into

A Keyphone can be allowed to Barge or Monitor another Station. A Station can be protected from being Barged or Monitored.
(**MSG** = Yes = Not protected from Barging and Monitoring)

Refer to the *Easy Reference Guide* for how to make a Monitoring Call or Barge a Trunk or Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Be Barged Into.

(Mode 06) Barge Another Station

A Keyphone can be allowed to Barge or Monitor another Station. A Keyphone Station can be given the privilege of Barging or Monitoring another Station.
(**MSG** = Yes = Can Barge or Monitor another Station)

Refer to the *Easy Reference Guide* for how to make a Monitoring Call or Barge a Trunk or Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Barge Another Station.

(Mode 07) Ring for System Alarm

System Alarms can be set to put music over the speaker of idle Keyphones. A Keyphone Station can be restricted from receiving System Alarms.
(**MSG** = Ring for System Alarms, **FLASH** = Not Ring)

See (System Programming Section) System Alarms for how to set System Alarms.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Ring for System Alarms.

(Mode 08) Call Duration Warning Tone

When a Station is on an Outgoing Call an audible Warning Tone is given to the Station at a regular interval to indicate the duration of the call. A Station can be restricted from receiving the audible Warning Tone.
(**MSG** = Yes = Warning Tone)

See (Trunk Programming Section - Mode 85) Call Duration Warning Tone Time for setting the warning tone time.

Warning: Do NOT set Call Duration Warning Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Call Duration Warning Tone.

(Mode 09) Camp-On Tone

When a Trunk or Station Call is transferred to a busy Station a Camp-On Tone is given to the Station. This is a short Ring burst if Keyphone or audible Tone if single-line telephone. A Station can be restricted from receiving the Camp-On Tone.
(**MSG** = Yes = Camp-On Tone)

Refer to the *Easy Reference Guide* for how to Transfer a Call to another Station.

Warning: Do NOT set Camp-On Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Camp-On Tone.

(Mode 10) Off Hook Ring Tone

When an Incoming Call on a Trunk is ringing a busy Station a Ring Tone is given to the Station. This is a short Ring burst if Keyphone or audible Tone on handset if single-line telephone. A Station can be restricted from receiving the Off Hook Ring Tone.
(**MSG** = Yes = Off Hook Ring Tone)

See (Trunk Programming Section) Trunk Ringing for how to set a Station Port to ring for an Incoming Call.

Warning: Do NOT set Off Hook Ring Tone on a Station port used for Voice Mail, Fax machine or Modem as it may interfere with operation of these devices.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Busy Remind Tone.

(Mode 11) Hold Recall Remind Tone

When a Call has been on Hold for longer then the Hold Recall Time, the Call rings the Station which put the Call on Hold. If the Station is busy, a Hold Recall Remind Tone is given to the Station. This is a short Ring burst if Keyphone or audible Tone if single-line telephone. A Station can be restricted from receiving the Hold Recall Remind Tone. (**MSG** = Yes = Hold Recall Remind Tone)

See (Station Programming Section - Mode 77) System Hold Recall Time, (Mode 78) System Hold Recall Busy Remind, and (Mode 79) Transfer Recall Time for how to set Hold Recall.

Warning: Do NOT set Hold Recall Remind Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Hold Recall Remind Tone.

(Mode 12) Programming Rights

A Keyphone can access System Programming using a password. The PROG Lamp on the Keyphone will light when accessing programming. A Station can be restricted from accessing System Programming. Restricting Programming Rights also denies System Speed Dial Programming access.
(**MSG** = Yes = Programming Rights)

Note: A Keyphone set as Console 1 can always access System Programming using the Master Password.

See *Introduction to Programming* for how to access System Programming from a Keyphone.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Programming Rights.

(Mode 13) Set Message Waiting Lamp

When a message has been set to a single-line telephone, a Message Waiting Lamp can be set to indicate that a message is waiting. If the Station is busy the Lamp will remain off. A Station can be set to use the Message Waiting Lamp feature.
(**MSG** = Yes = Set Message Waiting Lamp)

See (Station Programming Section - Mode 94) SLP Message Waiting Lamp Time for how to set the Message Waiting Lamp Cadence on a single-line telephone.

Note: The single-line telephone must have a Neon lamp which works with 90 VDC across Tip & Ring to be used as a Message Waiting Lamp. Not all systems provide the 90 VDC.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Set Message Waiting Lamp.

(Mode 14) Automatic Message Callback

When a message has been set to a Station Port, the Station will ring at a regular interval if idle to indicate that a message is waiting. When answered the Station will call to the Station which left the message. A Station can be set to use the Automatic Message Callback feature.
(**MSG** = Yes = Automatic Message Callback)

See (Station Programming Section - Mode 95) Message Waiting Ring Time for how to set the interval between ring attempts.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Automatic Message Callback.

(Mode 15) Message Waiting Indication on DSS Unit

When a message has been set to a Station Port, a Message Waiting Lamp can be set to indicate that a message is waiting. When a Station has a Message Waiting, the DSS Unit can also be set to show an indication. This allows the Operator to know which Stations have a Message Waiting.

See (Station Programming Section) Single-line Telephone for how to set up Message Waiting for a Single-line Telephone Port.

Refer to the *Easy Reference Guide* for how to set a Message to a Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure to set Message Waiting Indication on DSS Unit.

(Mode 16) Transfer Recall to Voice Mail

Each Station Port can be set to send any transferred call from another Station port to Voice Mail. When set to "YES" all transferred calls recall to your Mailbox rather than the Station that transferred the call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **16**

```
M:16 .
TRF RECALL TO VM
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 23 is set to "NO"

```
M:16 23          NO
  ST:132  LCD
```

Step 4: Press **MSG** (Yes) for Recall to VM or **FLASH** (No) to Recall to transferring Station.

e.g. Set to Recall to VM

```
M:16 23         YES
  ST:132  LCD
```

Step 5: Press **HOLD** to save change.

```
*:16 23         YES
  ST:132  LCD
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations Recall to VM.

```
*:16 23         YES
  ST:132  LCD
```

Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Station Port.
Port 24 does not Recall to VM.

```
M:16 24          NO
  ST:138  LCD
```

(Mode 17) Hold Recall to Voice Mail

Each Station Port can be set to send any call left on Hold to Voice Mail. When set to "YES" all calls left on Hold will recall to your Mailbox rather than your Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **17**

```
M:17 .
HOLD RECALL TO V
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 23 is set to "NO"

```
M:17 23        NO
  ST:132  LCD
```

Step 4: Press **MSG** (Yes) for Hold Recall to VM or **FLASH** (No) to Recall to Station.

e.g. Set to Hold Recall to VM.

```
M:17 23       YES
  ST:132  LCD
```

Step 5: Press **HOLD** to save change.

```
*:17 23       YES
  ST:132  LCD
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations Recall to VM.

```
*:17 23       YES
  ST:132  LCD
```

Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Station Port
24 does not HOLD Recall to VM.

```
M:17 24        NO
  ST:138  LCD
```

(Mode 18) Busy Remind Tone or Ring

When a Keyphone is busy, a Trunk set to Common Ring Busy Remind or Flexible Ring Busy Remind and is waiting to ring the Keyphone can indicate the waiting Trunk by either giving a short Tone in the handset or a single ring from the handsfree speaker.
Note : SLP always get a short Tone in the handset.
(**MSG** = Ring, **FLASH** = Tone)

Programming Procedure:

See (Station Programming Section – Mode 01) Put Call on Hold and follow the programming procedure for setting Busy Remind Tone or Ring.

(Mode 19) Whisper Announce

Each Station Port can be set to receive Whisper Announcements while on another Trunk call. When receiving a Whisper announce the calling internal party is heard in the receiver of the handset along with the outside party.

Only the internal receiving party will hear the whisper announcement, the outside caller does not hear the Whisper announcement.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **19**

```
M:19 .
WHISPER ANNOUNCE
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 23 is set to "NO"

```
M:19 23        NO
  ST:132  LCD
```

Step 4: Press **MSG** (Yes) to receive Whisper Announce or **FLASH** (No) to Restrict Whisper Announce.

e.g. Set to Receive Whisper Announce.

```
M:19 23       YES
  ST:132  LCD
```

Step 5: Press **HOLD** to save change.

```
*:19 23       YES
  ST:132  LCD
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations Recall to VM.

```
*:19 23       YES
  ST:132  LCD
```

Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g.Move to next Station Port 24 which does not Receive Whisper Announce.

```
M:19 24        NO
  ST:138  LCD
```

(Mode 20) Intercom Call Voice Announce

When receiving an Intercom Call, a Keyphone can be set to either ring until answered or give a short tone before switching to Voice Announce. If the Station has set Call Forward - Busy / No Answer then the Station will ring automatically.
(**MSG** = Yes = Voice Announce, **FLASH** = No = Ring)

Warning: Do Not use Intercom Call Voice Announce in an environment which has a high back ground noise level.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Intercom Call Voice Announce.

(Mode 21) Intercom Microphone On

When a Voice Announce Intercom Call is made to a Keyphone, the microphone can be set to automatically turn on for Voice response.
(**MSG** = Yes = Microphone On)

Note: If the microphone is set to turn on for a Voice Announce Call, then the call is considered to be answered (i.e. Call Pickup will not work).

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Intercom Microphone On.

(Mode 22) Voice Announce Ring

When an Intercom Call is made to a Keyphone which is set for Voice Announce, either a one-second ring or a short tone is received before the caller can announce the call.
(**MSG** = Ring, **FLASH** = Tone)

Note: If the microphone is set to turn on for a Voice Announce Call, then the call is considered to be answered (i.e. Call Pickup will not work).

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Voice Announce Ring.

(Mode 23) Automatic Outside Line

A Station Port can be set so that lifting the handset automatically accesses a Trunk from a Trunk Hunt Group. This eases operation of devices which only do outward dialing. (**MSG** = Yes = Automatic Outside Line)

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station Port.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Automatic Outside Line.

(Mode 24) Idle Trunk Access Microphone

When a Keyphone accesses an idle Trunk, the microphone can be set to automatically turn on. (**MSG** = Yes = Microphone On)

Refer to the *Easy Reference Guide* for how to access an idle Trunk.

Warning: Do NOT use Idle Trunk Access Microphone in an environment which has a high back ground noise level.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Idle Trunk Access Microphone.

(Mode 25) Speed Dial Directory

A Keyphone can be set to use the Speed Dial Directory when accessing Speed Dial to preview the number and name before accessing a Trunk and dialing.
(**MSG** = Yes = Use Speed Dial Directory)

Refer to the *Easy Reference Guide* for how to access and program Speed Dial bins.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Speed Dial Directory.

(Mode 26) Display Caller ID Information

When using Caller ID for identification on Incoming Calls, each Trunk can be set to display either the number or name for Keyphones. The Caller ID information is shown on the LCD display of the Keyphone and when printing Incoming SMDR Call Records.
(**MSG** = Yes = Display Caller ID Information)

See (Trunk Programming Section - Mode 05) Caller ID Name for how to set the Name of the calling party on the display.

Note: The facility used for Caller ID is supplied by the Central Office exchange and may not be able to always supply either number or name (not available in every country).

Refer to the *Installation Guide* for more information on using Caller ID.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Display Caller ID Information.

(Mode 27) Operator Call

A Station Port can be restricted from dialing 0 for the Operator when on a Trunk.
(**MSG** = Yes = Can Dial 0 for Operator)

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Operator Call.

(Mode 28) Headset Operation

A Station Port can be allowed to activate the Headset feature.
(**MSG** = No = Can not use the Headset operation)

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Operator Call.

(Mode 30) SLP Conference

A SLP Port can be restricted from setting up a 3 party conference.
(**MSG** = No = Can not use 3 party conferencing)

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Operator Call.

(Mode 31) House Phone

A Station Port can be set to work as a House Phone. Lifting the handset automatically calls the Operator. (**MSG** = Yes = House Phone)

See (Station Programming Section) Operator Operation for how to set Operator Call Destination.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting House Phone.

(Mode 32) Ring Door Phone Group 1

A Station Port can be set to ring all Stations assigned in Door Phone Ring Group 1. Lifting the handset automatically rings the Stations assigned to the ring group.
(**MSG** = Ring, **FLASH** = Not Ring)

See (System Programming Section - Mode 45) Door Phone Ring Group 1 for how to set Station Ports to ring for the Door Phone.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Ring Door Phone Group 1.

(Mode 33) Ring Door Phone Group 2

A Station Port can be set to ring all Stations assigned in Door Phone Ring Group 2. Lifting the handset automatically rings the Stations assigned to the ring group.
(**MSG** = Ring, **FLASH** = Not Ring)

See (System Programming Section - Mode 46) Door Phone Ring Group 2 for how to set Station Ports to ring for the Door Phone.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Ring Door Phone Group 2.

(Mode 34) Voice Mail Port

A Station Port can be set as a Voice Mail Port. Voice Mail Ports are single-line telephone ports. Programming a Station Port as a Voice Mail Port will stop interference from Camp-On Tone, Busy Remind Tone, and Hold Recall Remind Tone, which will interfere with Voice Mail operation. DTMF signals will also be generated for Station Ports which do not generate DTMF. Supervised transfers will automatically ring voice announce Keyphones. (**MSG** = Yes = Voice Mail Port)

See (System Programming Section) Voice Mail Interface for how to set a Station Port as a Voice Mail Port.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Voice Mail Port.

(Mode 35) Receive DTMF on Intercom

A Station Port can be set to receive DTMF during an Intercom Call. A second Inband Signaling scheme is available for a second set of devices that require Inband Signaling. DTMF signals will also be generated for Station Ports that do not generate DTMF. (**MSG** = Yes = Receive DTMF on Intercom)

See (System Programming Section) Inband Signaling 2 for how to set a Station Port to receive DTMF on Intercom.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Receive DTMF on Intercom.

(Mode 36) Allow Intercom Calls

A Station Port is normally allowed to make Station to Station Intercom Calls. A Station can be restricted from initiating an Intercom Call. Stations can not be restricted from receiving an Intercom Call. (**MSG** = Yes = Allow Intercom Calls)

Refer to the *Easy Reference Guide* for how to make an Intercom Call to another Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Allow Intercom Calls.

(Mode 37) Reserve a Trunk or Station (7)

A Station Port can be allowed to reserve a busy Trunk or Station. When the Trunk or Station become idle the reserving Station will be automatically called, answering will access the Trunk or call the reserved Station. A Station can be restricted from reserving a busy Trunk or Station. (**MSG** = Yes = Allow Reserve a Trunk or Station)

Refer to the *Easy Reference Guide* for how to reserve a busy Trunk or Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Reserve a Trunk or Station.

(Mode 38) Use Call Forward (71, 72)

A Station Port can use Call Forwarding to forward a call directed at that Station. A Station can forward all calls or when busy / no answer. A Station can be restricted from using Call Forward. (**MSG** = Yes = Allow setting Call Forward)

See (Station Programming Section) Station Call Forwarding for how to set a Station Call Forwarding.

Refer to the *Easy Reference Guide* for how to access and program Call Forward.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Call Forward.

(Mode 39) Set Wake-up / Remind Calls (741, 742)

A Station Port can be allowed to set a Wake-up / Remind Call. A daily or once only call can be set up. A Station can be restricted from setting a Wake-up / Remind Call.
(**MSG** = Yes = Allow setting a Wake-up / Remind Call)
Refer to the *Easy Reference Guide* for how to set a Wake-up / Remind Call.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Set Wake-up / Remind Calls.

(Mode 40) Set Message Waiting (743)

A Station Port can be allowed to set a Message Waiting on another Station. The MSG Lamp on a Keyphone or single-line telephone will light when a message is waiting. A Station can be restricted from setting a Message Waiting.
(**MSG** = Yes = Allow setting Message Waiting)

Refer to the *Easy Reference Guide* for how to set a Message Waiting.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Set Message Waiting.

(Mode 41) Answer a Page Call (745)

Paging Calls can be made through External Page Zones or over the speaker of idle Keyphones. A Paging Call can be answered from a Station. Station Ports can be restricted from answering Paging Calls.
(**MSG** = Yes = Allow Answer Paging Calls)

Refer to the *Easy Reference Guide* for how to make a Paging Call from a Station.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Answer Paging Calls.

(Mode 42) Program Personal Speed Dial (746)

Each Station Port has nine Personal Speed Dial bins (01 - 09). A Speed Dial bin has to be programmed before it can be used. A Station can be restricted from programming the Personal Speed Dial bins.
(**MSG** = Yes = Allow Program Personal Speed Dial)

Refer to the *Easy Reference Guide* for how to access and program Speed Dial bins.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Program Personal Speed Dial.

(Mode 43) Set Do-Not-Disturb (747)

A Station Port can be allowed to set Do-Not-Disturb for privacy or blocking calls to the Station. The DND Lamp on a Keyphone will light when Do-Not-Disturb is set.

A Station can be restricted from setting Do-Not-Disturb. Single-line telephones will receive special tone when Do-Not-Disturb is set.
(**MSG** = Yes = Allow setting Do-Not-Disturb)

Refer to the *Easy Reference Guide* for how to set Do-Not-Disturb.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Do-Not-Disturb.

(Mode 44) Use Conference (748)

A Station Port can be allowed to set up a Conference Call between two or more parties. The INT Lamp on a Keyphone will light when a Conference is made. A Station can be restricted from setting up a Conference Call.
(**MSG** = Yes = Allow making Conference Call)

Refer to the *Easy Reference Guide* for how to set up a Conference Call.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Conference.

(Mode 45) Use Lock Code (749)

A Station Port can be allowed to lock the Station to restrict access for outgoing calls. Check In / Check Out can be used to clear lock codes. A Station can be restricted from using a Lock Code. (**MSG** = Yes = Allow setting Lock Code)

Refer to the *Easy Reference Guide* for how to use Lock Code.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Lock Code.

(Mode 46) Use Hold Pickup (75)

A Station Port can be allowed to access the last Trunk or Station put on hold by another Station. This is an alternate to using a Call Park Bin. A Station can be restricted from using Hold Pickup. (**MSG** = Yes = Allow using Hold Pickup)

Refer to the *Easy Reference Guide* for how to use Hold Pickup.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Hold Pickup.

(Mode 47) Use Call Parking (76)

A Trunk or Station can be transferred into one of ten system Call Park bins. A Station Port can be restricted from accessing the Call Park bins.
(**MSG** = Yes = Allow using Call Parking)

Refer to the *Easy Reference Guide* for how to use Call Parking.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Call Parking.

(Mode 48) Use Individual Trunk Access (77)

Individual Trunks can be accessed by a Station Port. The Trunk is accessed if it is either idle or on hold. A Station can be restricted from using individual trunk access.
(**MSG** = Yes = Allow using Individual Trunk Access)

Refer to the *Easy Reference Guide* for how to access individual Trunks.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Individual Trunk Access.

(Mode 49) Access Speed Dial (70)

The system has 400 System Speed Dial bins (100 - 499) and each Station Port has nine Personal Speed Dial bins (01 - 09). Speed Dial bins are also used for Call Forwarding. A Station can be restricted from accessing Speed Dial bins.
(**MSG** = Yes = Allow access to Speed Dial)

Note: Speed Dial bins are also used for Call Forwarding. Denying access will also deny the Call Forwarding.

Refer to the *Easy Reference Guide* for how to access and program Speed Dial bins.

Programming Procedure:
See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting access to Speed Dial.

Console

The system can operate with one or two Consoles.

The Second Console can work either in parallel or differently to the main Console. The Console(s) have separate Incoming Call Ringing assignments, Console System Hold Recall Delay times, and when called as the Operator.

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s).

(Mode 50) Console

The Station that is to be used as the main Console can be selected. The Console can be assigned two different Station Ports. One for Day Mode and one for Night Mode.

There must always be a Console and the Console must be a Keyphone.

Refer to the *Easy Reference Guide* on how to set an alternate Operator for the Operator Stations.

See (Station Programming Section) Operator Destination for how to set the Operator Call destination.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **50**

```
M:50 .
CONSOLE 1
```

Step 3: Enter **1** for Day or **2** for Night

e.g. The Day Console is currently Port 1.

```
M:50 1          1
CONSOLE 1
```

Step 4: Press **FLASH** to clear (an existing Station Port number).

```
M:50 1
CONSOLE 1
```

Step 5: Enter new Station Port number for Console **01 - 44**

e.g. Set Day Console to Port 14.

```
M:50 1          14
CONSOLE 1
```

Step 6: Press **HOLD** to save change.

```
*:50 1          14
CONSOLE 1
```

Step 7: (Optional) Press **TRF** to scroll forward to (2) Night Console.

e.g. Night Console is Port 1.

```
M:50 2           1
CONSOLE 1
```

(Mode 51) Second Console

The Station Port to be used as the Second Console can be selected. The Second Console can be assigned two different Station Ports. One for Day Mode and one for Night Mode.

Normally when the Operator is dialed, the main Console will ring. The Second Console will ring if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

See (Station Programming Section) Operator Destination for how to set the Operator Call destination.

Refer to the *Easy Reference Guide* on how to set an alternate Operator for the Operator Stations.

Programming Procedure:
See (Station Programming Section - Mode 50) Console and follow the programming procedure to set the Second Console.

(Mode 52) Console Hold Recall Busy Remind

If the Console and Second Console are busy when a call put on hold is trying to recall, a Remind signal can be given that there is a recalling Trunk or Station.

The Console Hold Recall Busy Remind can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

Console Hold Recall Busy Remind overrides System Hold Recall Busy Remind for the Console and Second Console.

See (Trunk Programming Section - Mode 64) Console Ring Busy Remind for setting a Remind signal to the Console and Second Console for an Incoming Call.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the Hold Recall Time for calls put on hold by the Console and Second Console.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **52**

e.g. No Console Hold Recall Busy Remind.

```
M:52              0
CONS HOLD REMIND
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:52              0
CONS HOLD REMIND
```

Step 4: Enter new Console Hold Recall Busy Remind time **1 - 9999**

e.g. Set Console Hold Recall Busy Remind to 60 seconds.

```
M:52             60
CONS HOLD REMIND
```

Step 5: Press **HOLD** to save change.

```
*:52             60
CONS HOLD REMIND
```

(Mode 53) Console System Hold Recall Delay Time

When a Trunk has been on hold for the duration of System Hold Recall Time it will try to ring the Station which put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). The delay after a Station is recalled can be programmed. After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Intercom Calls on hold, by another Station, for the System Hold Recall Time will not recall to the Console and Second Console.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the System Hold Recall Time.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **53**

e.g. The Delay Time is currently 60 seconds.

```
M:53              60
SYS HOLD DELAY 1
```

Step 3: Press **FLASH** to clear an existing time.

```
M:53               0
SYS HOLD DELAY 1
```

Step 4: Enter new Console System Hold Recall Delay Time **0 - 9999**

e.g. Set Delay Time to 45 seconds.

```
M:53              45
SYS HOLD DELAY 1
```

Step 5: Press **HOLD** to save change.

```
*:53              45
SYS HOLD DELAY 1
```

(Mode 54) Second Console System Hold Recall Delay Time

When a Trunk has been on hold for the System Hold Recall Time it will try to ring the Station that put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). The delay after a Station is recalled can be programmed. After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Intercom Calls on hold, by another Station, for the System Hold Recall Time will not recall to the Console and Second Console.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the System Hold Recall Time.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:
See (Station Programming Section - Mode 53) Console System Hold Recall Delay Time and follow the programming procedure to set the Second Console System Hold Recall Delay Time.

(Mode 55) Console System Hold Recall Release Time

When a Trunk has been on hold for the System Hold Recall Time it will try to ring the Station that put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released. This does not affect Trunk Calls put on hold by the Console(s).

The Release Time can be set from 1 to 9999 seconds. When set to 0 there will be no release.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the System Hold Recall Time.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:
See (Station Programming Section - Mode 53) Console System Hold Recall Delay Time and follow the programming procedure to set the Console System Hold Recall Release Time.

(Mode 56) Console Call Waiting Busy Remind

If the Console and Second Console are busy when a Station is trying to call the Operator, a Remind signal can be given that there is a Station trying to call.

The Console Call Waiting Busy Remind can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

See (Station Programming Section - Mode 59) Camp-On Ring for Station calling Busy Operator for setting Stations to Camp-on Ring the Console and Second Console.

Programming Procedure:
See (System Programming Section - Mode 53) Console System Hold Recall Delay Time and follow the programming procedure for setting the Console Call Waiting Busy Remind.

Operator Destination

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s).

Normally when the Operator is dialed, the main Console will ring. The Second Console will ring if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

A Station Hunt Group can be assigned as the destination for Operator Calls. This allows a group of Stations to share the Operator duties.

When using Tenant Service the Station assigned as Tenant Operator has priority over the assigned system Operator(s).

(Mode 57) Operator Call Destination

Normally when the Operator is dialed, the Console or Second Console will ring.

A Station Hunt Group can be assigned as the destination for Operator Calls. This allows a group of Stations to share the Operator duties.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as a Console.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

See (System Programming Section - Mode 15) Operator Access Code for how to set the code to call the Operator.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **57**

e.g. Operator is Console and Second Console.

```
M:57              0
OPERATOR DESTN
```

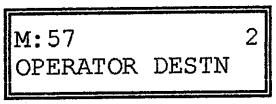
Step 3: Press **FLASH** to clear (an existing Station Hunt Group).

e.g. Set to Console

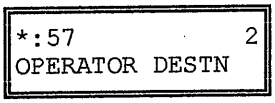
```
M:57              0
OPERATOR DESTN
```

Step 4: Enter Station Hunt Group number **1 - 8**

e.g. Set Operator to Station Hunt Group 2.



Step 5: Press **HOLD** to save change.



(Mode 58) Ring Two Operators

Normally when the Operator is dialed, the main Console will ring. The Second Console will ring if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

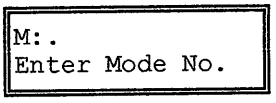
When a Station calls the Operator both the Console and Second Console will ring if idle. If Operator Destination is set to a Station Hunt Group then two idle Stations are selected to ring from the Group.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as a Console.

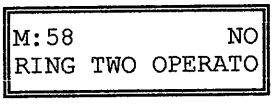
See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

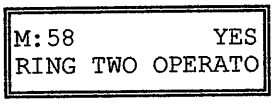


Step 2: Enter Mode **58**

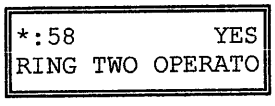


Step 3: Press **MSG** (Yes) for Ring Two Operators or **FLASH** (No) for Ring 1st Console.

e.g. Set to ring two Operators.



Step 4: Press **HOLD** to save change.



(Mode 59) Camp-On Ring for Station calling Busy Operator

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s). But when the assigned Operator Station(s) are all busy, the Station gets Busy Tone.

For a busy Operator the Station can camp-on to the Operator and be connected when the Operator becomes available. The Station will receive Ring-Back Tone.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as a Console.

Programming Procedure:
See (Station Programming Section - Mode 58) Ring Two Operators and follow the programming procedure to set Camp-On Ring for Station calling Busy Operator.

Station Hunt Groups

(Mode 60) Station Hunt Groups

The system has nine Station Hunt Groups. The first eight are regular Station Hunt Groups which can be used for many purposes while Station Hunt Group 9 is used specifically for Voice Mail. Each group can have up to sixteen Stations assigned.

See (Trunk Programming Section - Mode 65) Trunk Station Hunt Group Ringing - Day and (Trunk Programming Section - Mode 66) Trunk Station Hunt Group Ringing - Night for how to set a Trunk to ring a Station Hunt Group.

See (System Programming Section - Mode 50) Voice Mail Station Hunt Group for how to set a Station Hunt Group for Voice Mail.

Refer to the *Easy Reference Guide* on how to access a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **60**

```
M:60 .
ST HUNT GROUP
```

Step 3: Enter Station Hunt Group number **1 - 8**

e.g. Station Hunt Group 1

```
M:60 1 .
ST HUNT GROUP
```

Step 4: Enter memory position number **01 – 16 Note:** A memory position is a counter to keep track of how many Station Ports have been entered, up to 16 ports can be assigned per Station Group.

e.g. The fourth position is not set.

```
M:60 1 04
ST HUNT GROUP
```

Step 5: Press **FLASH** to clear an existing Station Port number.

```
M:60 1 04
ST HUNT GROUP
```

Step 6: Enter new Station Port number **01 - 44**

e.g. Set to Port 21

```
M:60 1 04     21
ST HUNT GROUP
```

Step 7: Press **HOLD** to save change.

```
*:60 1 04     21
ST HUNT GROUP
```

Step 8: Press **TRF** to scroll forward to next memory position or **MIC** to move backward to previous memory position. Repeat from Step 5.

e.g. Move to next position

```
M:60 1 05
ST HUNT GROUP
```

(Mode 61) Terminal Station Hunt Group Access

Stations are always accessed from a Station Hunt Group starting at the first position of the Station Hunt Group and accessing the first idle Station.

An alternative to terminal hunting is distributed hunting where the Stations are accessed in rotation.

See (System Programming Section - Mode 50) Voice Mail Station Hunt Group for how to set a Station Hunt Group for Voice Mail.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **61**

```
M:61 .
TERMINAL ST ACC
```

Step 3: Enter Station Hunt Group number **1 - 9**

e.g. Station Hunt Group 2

```
M:61 2          YES
TERMINAL ST ACC
```

Step 4: Press **MSG** (Yes) for terminal or **FLASH** (No) for distributed.

e.g. Set to use distributed Access

```
M:61 2           NO
TERMINAL ST ACC
```

Step 5: Press **HOLD** to save change.

```
*:61 2           NO
TERMINAL ST ACC
```

Step 6: (Optional) Press **CONF** to set ALL Station Hunt Groups the same.

```
*:61 2           NO
TERMINAL ST ACC
```

Step 7: (Optional) Press **TRF** to scroll forward to next Group or **MIC** to move backward to previous Group. Repeat from Step 4.

e.g. Move to next Station Hunt Group

```
M:61 3           NO
TERMINAL ST ACC
```

(Mode 62) Circular Station Hunt Group Ringing

When a Station calls a Station Hunt Group (78n), one idle Station is accessed. An alternative is setting up a circular Station Hunt Group where at first only one Station rings and 6 seconds later a second Station rings and after 12 seconds a third Station rings, etc. Circular Station Hunt Group Ringing can be either terminal or distributed as set by (Mode 61) Terminal Station Hunt Group Access.
(**MSG** = Yes = Circular, **FLASH** = NO = one Station)

Programming Procedure:

See (Station Programming Section – Mode 61) Terminal Station Hunt Group Access and follow the programming procedure for setting Circular Station Hunt Group Ringing.

Station

(Mode 70) Flexible Station Number Assignment

A Station number is a flexible number assigned to each Port for Intercom Calling and identification. Each Port can be assigned only one Station number.

Station numbers can be one to four digits and different length Station numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 - 699, and 1000 - 6999).

Refer to the *Ports and Station Numbering* section for more information on Station numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **70**

```
M:70 .
FLEX NO. ASSIGN
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 16 is Station number 116

```
M:70 16        116
  ST:116
```

Step 4: Press **FLASH** to clear (an existing Station number).

e.g. Erase Station number.

```
M:70 16
  ST:116
```

Step 5: Enter new Station number.

e.g. Set Port 16 to Station number 219.

```
M:70 16        219
  ST:116
```

Step 6: Press **HOLD** to save change.

```
*:70 16        219
  ST:219
```

Step 7: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Port
Port 17 is Station number 117.

```
M:70 17        117
  ST:117
```

(Mode 71) Station Names

Each Station can be assigned a Name up to eight characters long. The name is used in place of the Station number when making Intercom Calls, etc.

Keys:

1	QqZz
2	AaBbCc
3	DdEeFf
4	GgHhIi
5	JjKkLl
6	MmNnOo
7	PpQqRrSs
8	TtUuVv
9	WwXxYy
0	Space then complete range of characters.
*	Move left one space.
#	Move right one space.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **71**

```
M:71 .
STATION NAMES
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 12 is Station 112.

```
M:71 12
  ST:112
```

Step 4: Press **FLASH** to clear (an existing name).

```
M:71 12
  ST:112
```

Step 5: Enter name by pressing the correct lettered key.

e.g. Press **2** for 'A' in Accounts

```
M:71 12 A
  ST:112
```

Step 6: Move to next letter. **#** moves right and * moves back to the left.

e.g. Move to next letter

```
M:71 12 A
  ST:112
```

Enter next letter.

e.g. Press **2** six times for 'c' in Accounts.

```
M:71 12 Ac
  ST:112
```

Step 7: Repeat the above two steps until the Station name is entered.

Step 8: Press **HOLD** to save change.

```
*:71 12 Accounts
  ST:112
```

Step 9: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port.

e.g. Move to next Port

```
M:71 13
  ST:113
```

(Mode 72) Station Group Assignment

There are eight Station Groups (1 - 8) to which Stations can be assigned. Stations are grouped together for Paging a Group of Keyphones, and Group Call Pickup. A Station can be assigned to more than one Group or no groups.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **72**

```
M:72 .
ST GROUP ASSIGN
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 11 is Station 111.

```
M:72 11 .
  ST:111
```

Step 4: Enter Group number **1 - 8**

e.g. Group 3

```
M:72 11 3      NO
  ST:111
```

Step 5: Press **MSG** (Yes) to set Station Group or **FLASH** (No) to clear.

e.g. Set Port 11 to Group 3

```
M:72 11 3     YES
  ST:111
```

Step 6: Press **HOLD** to save change.

```
*:72 11 3     YES
  ST:111
```

Step 7: (Optional) Press **CONF** to set ALL Stations the same.

```
*:72 11 3     YES
  ST:111
```

Step 8: (Optional) Press **TRF** to scroll forward to next Group or **MIC** to move backward to previous Group. Repeat from Step 5.

e.g. Move to next position
Port 11 is not part of
Station Group 4.

```
M:72 11 4      NO
  ST:111
```

(Mode 73) Softkey Assignment

Each LD40 Keyphone has up to thirty-two programmable softkeys 01-32 (DT36 Keyphones use 01-24, 25-48). Softkey positions (33 - 64) can also be programmed to provide additional Softkeys that are accessed using the **FLASH** key (2nd Level) when the Keyphone is idle.

Each DSS Unit has sixty-four programmable softkeys (01 - 64) used when a DSS Unit is identified as being connected to the Port.

Each softkey can be used for Direct Station Selection (DSS/BLF), Station Hunt Group Access, Direct Trunk Selection, Trunk Hunt Group Access, One Touch Speed Dial, Park Bin Access, Wake-Up Call Access, Check Out / In Access, Record, Call Forwarding Access, Volume Up, Volume Down, Caller I.D. or VAX.

Softkey plans are ignored for Single-Line Telephone Ports as they have no effect.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **73**

```
M:73 .
SOFTKEY ASSIGN
```

Step 3: Enter Station Port number **01 – 44**

e.g. Port 18.

```
M:73 18 .
  ST:18
```

Step 4: Enter a softkey 01 - 24.

e.g. The fifth softkey is Trunk 5

```
M:73 18 05  TK:5
  ST:18
```

Step 5: Press **FLASH** to clear the existing setting.

```
M:73 18 05
  ST:18
```

Step 6: Press **MSG** to step through the softkey types : Direct Station Selection (DSS/BLF), Station Hunt Group Access, Direct Trunk Selection, Trunk Hunt Group Access (Trunk Pool key), One Touch Speed Dial ect....

1. Direct Station Selection (DSS/BLF):

Enter new Station Port number **01 - 44**

e.g. Set to Port 34.

```
M:73 18 05    34
  ST:18
```

2. Station Hunt Group Access:

Press **MSG** once to enter new Station Hunt Group.

```
M:73 18 05STGP:
  ST:18
```

Enter Station Hunt Group number **1 - 9**

e.g. Set to Station Hunt Group 4

```
M:73 18 05STGP:4
  ST:18
```

3. Direct Trunk Selection:

Press **MSG** twice to enter new Trunk.

```
M:73 18 05 TK:
  ST:18
```

Enter Trunk number **01 - 16**

e.g. Set to Trunk 2

```
M:73 18 05 TK:02
  ST:18
```

4. Trunk Hunt Group Access:

Press **MSG** three times to enter new Trunk Hunt Group.

```
M:73 18 05TKGP:
  ST:18
```

Enter Trunk Hunt Group number **1 - 8**

e.g. Set to Trunk Hunt Group 2

```
M:73 18 05TKGP:2
  ST:18
```

5. One Touch Speed Dial:

Press **MSG** four times to enter new Speed Dial.

```
M:73 18 05SD
  ST:18
```

Enter Speed Dial bin **01 - 09, 100 - 499**

e.g. Set to Speed Dial bin 109.

```
M:73 18 05SD 109
  ST:18
```

6. Park Bin Access:

Press **MSG** five times to enter Park Bin Access.

```
M:73 18 05Park
  ST:18
```

Enter Park bin **0 - 9**

e.g. Set to Park bin 2

```
M:73 18 05Park 2
  ST:18
```

7. Call Forwarding Access:

Press **MSG** six times to enter new Call Forwarding Access.

```
M:73 18 05Fwrd
  ST:18
```

Enter type of Call Forwarding 1 - 2 for All or Busy / No Answer.

e.g. Set to 2 for Busy / No Answer

```
M:73 18 05Fwrd 2
  ST:18
```

8. Wake-Up Call Access:

Press **MSG** seven times to enter Wake-Up Call Access.

```
M:73 18 05WAKEUP
  ST:18
```

9. Check Out / In Access:

Press **MSG** eight times to enter Check Out / In Access.

```
M:73 18 05CHKOUT
  ST:18
```

10. Record Button:

Press **MSG** nine times to enter Record button.

```
M:73 18 05RECORD
  ST:18
```

11. Volume Up Button:

Press **MSG** ten times to enter Volume Up button.

```
M:73 18 05VOL UP
  ST:18
```

12. Volume Down Button:

Press **MSG** eleven times to enter Volume Down button.

```
M:73 18 05VOL DN
  ST:18
```

13. Caller I.D. Button:

Press **MSG** thirteen times to enter Caller I.D. button.

```
M:73 18 05  CLID
  ST:18
```

Step 7: Press **HOLD** to save change.

```
*:73 18 05  TK:2
  ST:18
```

Step 8: Press **CONF** to set All Stations the same.

e.g. Set to Speed Dial 109 for all Stations.

```
C:73 18 05SD>109
  ST:11
```

Step 9: Press **TRF** to scroll forward to next softkey or MIC to move backward to previous softkey. Repeat from Step 5.

e.g. Move to next softkey
The sixth Softkey is Trunk 6.

```
M:73 18 06  TK:6
  ST:18
```

14. VAX Button: Voice Activated Exchange is a future release.

(Mode 74) Trunk Hunt Group Assignment

There are eight Trunk Hunt Groups (1 - 8) which can be used by Stations for Automatic Trunk Selection.

See (Trunk Programming Section - Mode 50) Trunk Hunt Group Programming for how to set the Trunk Hunt Groups.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **74**

```
M:74 .
TK GROUP ASSIGN
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 14 is Station 113 and is using Trunk Hunt Group 3.

```
M:74 14          3
  ST:113
```

Step 4: Enter new Trunk Hunt Group **1 - 8**

e.g. Set to Trunk Hunt Group 2.

```
M:74 14          2
  ST:113
```

Step 5: Press **HOLD** to save change.

```
*:74 14          2
  ST:113
```

Step 6: (Optional) Press **CONF** to set ALL Stations the same.

```
*:74 14          2
  ST:113
```

Step 7: (Optional) Press **TRF** to scroll forward to next port or MIC to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Port 15 is using Trunk Hunt Group 1.

```
M:74 15          1
  ST:114
```

(Mode 75) Station Music Source

There are three music sources available to a Station Port for back ground music, one internal and two external. The two external music sources each require a device to be connected to the system.

Refer to the *Installation Guide* for more information on connecting an External Music Source.

Refer to the *Easy Reference Guide* on how to access Back Ground Music for a Keyphone.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **75**

```
M:75 .
ST MUSIC SOURCE
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 7 is Station 106

```
M:75 07          1
  ST:106
```

Step 4: Press **1** (internal), **2** (external 1), or **3** (external 2).

e.g. Set to External Music Source 1.

```
M:75 07          2
  ST:106
```

Step 5: Press **HOLD** to save change.

```
*:75 07          2
  ST:106
```

Step 6: (Optional) Press **CONF** to set ALL Stations the same.

```
*:75 07          2
  ST:106
```

Step 7: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port. Repeat from Step 4..

e.g. Move to next Station Port.

```
M:75 08          1
  ST:107
```

(Mode 76) Maximum Trunk Call Duration

A Maximum Trunk Call Duration time can be set. If the duration is exceeded the Trunk Call is terminated. A warning tone will be given ten seconds before the call is terminated.
The Maximum Trunk Call Duration can be set from 1 to 9999 seconds. If set to 0 there will be no Maximum Trunk Call Duration.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **76**

```
M:76 .
MAX TK CALL TIME
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 24, Station 123 has a limit of 600 seconds (10 minutes).

```
M:76 24        600
  ST:123
```

Step 4: Press **FLASH** to clear (an existing time).

```
M:76 24          0
  ST:123
```

Step 5: Enter new Maximum Trunk Call Duration.

e.g. Set Maximum Time to 1200 seconds.

```
M:76 24       1200
  ST:123
```

Step 6: Press **HOLD** to save change.

```
*:76 24       1200
  ST:123
```

Step 7: Press **CONF** to set ALL Stations the same.

```
*:76 24       1200
  ST:123
```

Step 8: Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port.

e.g. Move to next Port.
Port 25 has no limit.

```
M:76 25          0
  ST:225
```

(Mode 77) System Hold Recall Time

The System Hold Recall Time for a Trunk or Intercom Call can be set from 1 to 9999 seconds.

If the System Hold Recall Time is set to 0, a call put on hold will never recall (Infinite Hold Recall).

System Hold Recall Time is also used by all Intercom Calls put on hold and only the Station that put the Intercom Call on hold will be recalled.

See (Station Programming Section - Mode 53) Console System Hold Recall Delay Time and (Station Programming Section - Mode 54) Second Console System Hold Recall Delay Time for how a Trunk Call will eventually recall to the Console and Second Console.

See (Station Programming Section - Mode 76) Maximum Trunk Call Duration and follow the programming procedure for setting the System Hold Recall Time.

(Mode 78) System Hold Recall Busy Remind

Stations which are busy when a call put on hold is trying to recall can be given a Remind signal that there is a recalling Trunk or Station.

The System Hold Recall Busy Remind can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

Console Hold Recall Busy Remind overrides System Hold Recall Busy Remind for the Console and Second Console.

See (Trunk Programming Section - Mode 72) Flexible Ring Busy Remind and (Trunk Programming Section - Mode 77) Common Ring Busy Remind for setting a Remind signal to a Station for an Incoming Call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **78**

e.g. System Hold Recall Busy Remind is 60 sec.

```
M:78              60
SYS HOLD REMIND
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:78               0
SYS HOLD REMIND
```

Step 4: Enter new System Hold Recall Busy Remind time **1 - 9999**

e.g. Set System Hold Recall Busy Remind to 90 seconds.

```
M:78              90
SYS HOLD REMIND
```

Step 5: Press **HOLD** to save change.

```
*:78              90
SYS HOLD REMIND
```

(Mode 79) Transfer Recall Time

The Transfer Recall Time for a Trunk Call can be set from 1 to 9999 seconds.

If the Transfer Recall Time is set to 0, a transferred Trunk Call which is not answered by the target Station will not recall to the Station which transferred the Trunk.

Transfer Recall Time is not used for transferred Intercom Calls.

Programming Procedure:
See (Station Programming Section - Mode 76) Maximum Trunk Call Duration and follow the programming procedure for setting the Transfer Recall Time.

(Mode 81) Reserve Recall Time

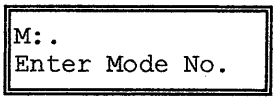
When a Station is ringing for a reserved Trunk or Station, the callback will be automatically canceled if not answered within the Reserve Recall Time.

The Reserve Recall Time can be set from 1 to 9999 seconds.

Refer to the *Easy Reference Guide* for how to reserve a busy Trunk or Station.

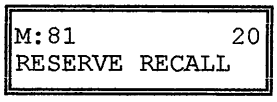
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

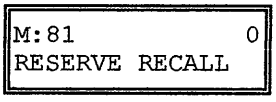


Step 2: Enter Mode **81**

e.g. Reserve Recall Time is 20 seconds.

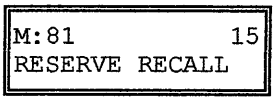


Step 3: Press **FLASH** to clear (an existing time).

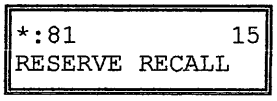


Step 4: Enter Reserve Recall Time.

e.g. Set Reserve Recall Time to 15 seconds.



Step 5: Press **HOLD** to save change.



(Mode 82) Keyphone Automatic Busy Release Time

A Keyphone receiving Busy Tone automatically releases and resets after the Automatic Busy Release Time expires. A Keyphone in System Programming does not release.

The Automatic Busy Release Time can be set from 1 to 9999 seconds. If set to 0 there is no Automatic Release.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **82**

e.g. Automatic Release after 15 seconds.

```
M:82              15
AUTO RLS TIME
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set no Automatic Release

```
M:82               0
AUTO RLS TIME
```

Step 4: Enter Keyphone Automatic Release Time.

e.g. Set Automatic Release Time to 10 seconds.

```
M:82              10
AUTO RLS TIME
```

Step 5: Press **HOLD** to save change.

```
*:82              10
AUTO RLS TIME
```

Station Call Forwarding

There are two methods of Call Forwarding: External and Station.

Station Call Forwarding can be set individually for each Station.

A Station has the choice of two ways to forward calls: All or Busy / No Answer. Each can be set to Call Forward to either another Station or to an External number. Call Forwarding to an External number is achieved by the use of Speed Dial bins.

Call Forwarding - All Calls - All Calls are automatically forwarded with no delay.

Call Forwarding - Busy / No Answer - All Calls will be forwarded if the Station is busy or after the Station rings for the programmed no answer time.

Call Forwarding to an External number - A Trunk ringing the Station is treated the same as External Call Forwarding. Stations calling the Station will access a Trunk automatically and dial the number in the assigned Speed Dial bin.
A Call can not be transferred to a Station which has Call Forwarding - All Calls or Call Forwarding - Busy (when busy) set to an External number. This would automatically connect the calling Station to an outside line.

Note: Ensure that the Speed Dial bin is not restricted for the Station that has to dial the number. Speed Dial bins above the (System Programming Section - Mode 63) Speed Dial Toll Restriction Break Point are NOT Toll restricted.

Programming Procedure:

See (Trunk Programming Section) External Call Forwarding for how to set Call Forwarding for individual Trunks.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

(Mode 83) No Answer Forward Time

When using Call Forward - Busy / No Answer a Station can be programmed to forward calls to another Station (or External number) if not answered within a programmed time.

The No Answer Forward Time can be set from 10 to 9999 seconds. One Trunk ring cycle equals 4 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **83**

e.g. Currently set to 10 seconds.

```
M:83              10
NO ANSWER TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:83               0
NO ANSWER TIME
```

Step 4: Enter new No Answer Forward Time.

e.g. Set to 16 seconds.

```
M:83              16
NO ANSWER TIME
```

Step 5: Press **HOLD** to save change.

```
*:83              16
NO ANSWER TIME
```

Note: The minimum No Answer Forward Time is 10 seconds.

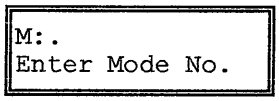
(Mode 84) Call Forward Busy Ring Time

When using Call Forward - Busy / No Answer a Station can be programmed to ring for a programmed time before forwarding calls to another Station (or External number) if the Station is busy.

The Call Forward Busy Ring Time can be set from 0 to 9999 seconds.

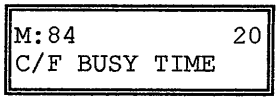
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

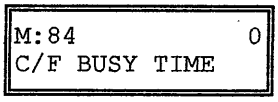


Step 2: Enter Mode **84**

e.g. Currently set to 10 seconds.

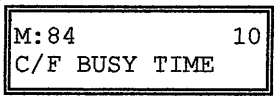


Step 3: Press **FLASH** to clear (an existing time).

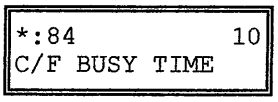


Step 4: Enter new Call Forward Busy Ring Time **0 - 9999**

e.g. Set to 10 seconds.



Step 5: Press **HOLD** to save change.



(Mode 85) Call Forward - All Calls

A Station has the choice of two ways to forward calls: All or Busy / No Answer.

All Calls are automatically forwarded with no delay to either another Station, a Station Hunt Group, or to an External number. A Speed Dial bin (01 - 09, 100 - 499) is used to store the External number to be dialed.

Call forwarding to an External number has to be set from the individual Stations.

Warning: Careful consideration must be taken when setting Call Forwarding for Voice Mail ports, Fax machines, Modems, and other similar devices.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

See (Station Programming Section - Mode 38) Use Call Forward for allowing or restricting Stations from setting Call Forward.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **85**

```
M:85 .
C/F ALL CALLS
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 11 is Station 110.

```
M:85 11
  ST:110
```

Step 4: Press **FLASH** to clear (an existing Station Port number).

e.g. Set No Call Forwarding.

```
M:85 11
  ST:110
```

Step 5: Enter new Station Port number **01 - 44**

e.g. Set to Station Port 45

```
M:85 11          45
  ST:110
```

OR Press **SPEED** + Speed Dial bin **01 - 09, 100 - 499**

e.g. Set to Station Port 45

```
M:85 11          45
  ST:110
```

Step 6: Press **HOLD** to save change.

```
*:85 11        167
  ST:110
```

Step 7: (Optional) Press **CONF** to set ALL Stations the same. **Please note Warning.**

```
*:85 11        167
  ST:110
```

Step 8: (Optional) Press **TRF** to scroll forward to next Station Port or **MIC** to move backward to Previous Port. Repeat from Step 4.

e.g. Move to next Station Port
No Call Forwarding is set.

```
M:85 12
  ST:111
```

(Mode 86) Call Forward - Busy / No Answer

A Station has the choice of two ways to forward calls: All or Busy / No Answer.

All Calls will be forwarded if the Station is busy or after the Station rings for the programmed no answer time to either another Station, a Station Hunt Group, or to an External number. A Speed Dial bin (01 - 09, 100 - 499) is used to store the External number to be dialed.

A busy Station can be programmed to ring for a programmed time before forwarding calls to another Station (or External number).

Call forwarding to an External number has to be set from the individual Stations.

Warning: Careful consideration must be taken when setting Call Forwarding for Voice Mail ports, Fax machines, Modems, and other similar devices.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

See (Station Programming Section - Mode 38) Use Call Forward for allowing or restricting Stations from setting Call Forward.

Programming Procedure:
See (Station Programming Section - Mode 85) Call Forward - All Calls and follow the programming procedure to set Call Forward - Busy / No Answer.

(Mode 87) Call Forward Incoming Calls

When an Incoming Call on a Trunk is ringing a Station, which has Call Forwarding set, the Incoming Call will be forwarded. A Station can be restricted from Call Forwarding unanswered Incoming Calls.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **87**

```
M:87 .
C/F INCOMING
```

Step 3: Enter Station Port number **01- 44**

e.g. Port 23 is Station 132

```
M:87 23        YES
  ST:132
```

Step 4: Press **MSG** (Yes) for Call Forward Incoming Calls or **FLASH** (No) to restrict.

e.g. Set to stop forwarding Incoming Calls.

```
M:87 23         NO
  ST:132
```

Step 5: Press **HOLD** to save change.

```
*:87 23         NO
  ST:132
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations can not forward Incoming Calls.

```
*:87 23         NO
  ST:132
```

Step 7: (Optional) Press **TRF** to scroll forward to next Station Port or MIC to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Station Port. Port 24 can forward Incoming Calls.

```
M:87 24        YES
  ST:138
```

(Mode 88) Call Forward Busy Ring

When a Trunk or Station is attempting to ring a busy Station, which has Call Forward - Busy / No Answer set, the call will be forwarded. An optional delay can be added to allow the Station time to answer the call. (**MSG** = Yes = Call Forward Busy Ring)

See (Station Programming Section - Mode 87) Call Forward Incoming Calls and follow the programming procedure for setting Call Forward Busy Ring.

(Mode 89) Call Forward DNIS to Voice Mail

When a DNIS Call is ringing a Station, which has Call Forwarding to V-Mail set, the DNIS Call can be forwarded to the corresponding Mailbox for that ringing station.

Since the DNIS call is considered a Incoming Call Section 2 Mode 87 will also need to be programmed.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **89**

```
M:89 .
C/F DNIS TO VM
```

Step 3: Enter Station Port number **01- 44**

e.g. Port 23 which is Station 132 is set to "NO"

```
M:89 23        NO
  ST:132
```

Step 4: Press **MSG** (Yes) for Call Forward DNIS Calls or **FLASH** (No) to restrict.

e.g. Set to forward Incoming DNIS calls to V-Mail.

```
M:89 23        YES
  ST:132
```

Step 5: Press **HOLD** to save change.

```
*:89 23        YES
  ST:132
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations set to forward DNIS calls to V-Mail.

```
*:89 23        YES
  ST:132
```

Step 7: (Optional) Press **TRF** to scroll forward to next Station Port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Station Port. Port 24 is set to "NO" for DNIS calls to V-Mail.

```
M:89 24        NO
  ST:138
```

Single-line Telephone

(Mode 90) SLP Dial Time

On some systems single-line telephones must share a DTMF receiver(s). For equal sharing of this facility a time limit for dialing must be set. Only single-line telephones that are assigned a DTMF receiver will get Dial Tone. The single-line telephone will receive a Busy Tone after the Dial Time has expired if not making a Trunk or Intercom Call.

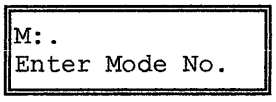
The SLP Dial Time can be either an absolute time beginning from when the single-line telephone first receives Dial Tone or a time-out after the last digit dialed.

DTMF single-line telephones can still dial through on a Trunk after the elapsed time.

The SLP Dial Time can be set from 5 to 9999 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

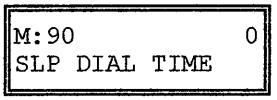


Step 2: Enter Mode **90**

e.g. Dial Time is currently 40 seconds.

Step 3: Press **FLASH** to clear (an existing time).

e.g. Clear before entering new time.



Step 4: Enter new Dial Time **5 - 9999**

e.g. Set Dial Time to 25 seconds.

Step 5: Press **HOLD** to save change.

(Mode 91) SLP Absolute Dial Timer

On some systems single-line telephones must share a DTMF receiver(s). For equal sharing of this facility a time limit for dialing must be set. The SLP Dial Time can be either an absolute time beginning from when the single-line telephone first receives Dial Tone or a time-out after the last digit dialed.

Note: SLP Dial Time is redundant for some systems and single-line interface cards as they have one DTMF receiver per port.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **91**

```
M:91          YES
ABSOLUTE TIMER
```

Step 3: Press **MSG** (Yes) for Absolute Timer or **FLASH** (No) for Reset every digit.

e.g. Set to reset timer after every digit dialed.

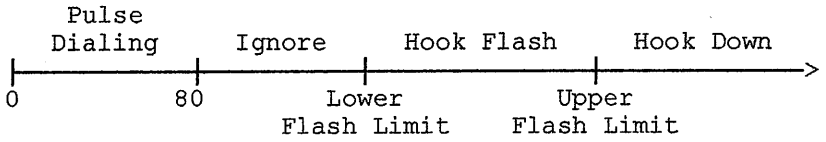
```
M:91           NO
ABSOLUTE TIMER
```

Step 4: Press **HOLD** to save change.

```
*:91           NO
ABSOLUTE TIMER
```

(Mode 92) SLP Lower Flash Limit

The Upper and Lower SLP Flash Limits can be set to ensure accurate Flash or Hook Flash detection (n x 10 ms).



Any pulses less than 80 ms are considered to be Pulse dialing.
All pulses or flashes between 80 ms and the Lower Flash Limit are ignored.
Any flashes between the Upper and Lower Flash Limits are considered to be a hookswitch Flash.
All flashes greater than the Upper Flash Limit are considered to be a disconnect.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **92**

e.g. Lower Flash Limit is currently 80 ms.

```
M:92              8
MIN SLP FLASH
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:92              0
MIN SLP FLASH
```

Step 4: Enter new Lower Flash Limit

e.g. Set Lower Flash Limit to 120 ms (n = 12).

```
M:92             12
MIN SLP FLASH
```

Step 5: Press **HOLD** to save change.

```
*:92             12
MIN SLP FLASH
```

Note: The minimum SLP Upper and Lower Flash Limit is 80 ms (n = 8); maximum time is 1000 ms (n = 100).

(Mode 93) SLP Upper Flash Limit

The Upper and Lower SLP Flash Limits can be set to ensure accurate Flash or Hook Flash detection (n x 10 ms).

The Upper Flash Limit should be higher then the Lower Flash Limit.

Programming Procedure:

See (Station Programming Section - Mode 92) SLP Lower Flash Limit and follow the programming procedure to set the SLP Upper Flash Limit.

(Mode 94) SLP Message Waiting Lamp Time

When a message has been set to a single-line telephone, a Message Waiting Lamp can be set to indicate that a message is waiting. If the Station is busy the Lamp will remain off. A Station can be set to use the Message Waiting Lamp feature. When a single-line telephone has a Message Waiting the Lamp will flash at a programmable interval.

The SLP Message Waiting Lamp Time can be set from 1 to 20 seconds. If set to 0 there will be not Message Waiting Lamps.

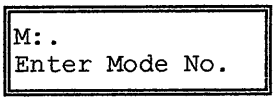
Note: The single-line telephone must have a Neon lamp that works with 90 VDC across Tip & Ring to be used as a Message Waiting Lamp. Not all systems provide the 90 VDC.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

See (Station Programming Section - Mode 13) Set Message Waiting Lamp for how to set the Message Waiting Lamp on a single-line telephone.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.



Step 2: Enter Mode **94**

Step 3: Press **FLASH** to clear an existing time

e.g. Set to no Message Waiting Lamps.

Step 4: Enter SLP Message Waiting Lamp Time **1 - 20**

e.g. Set Message Waiting Lamp to flash every 10 seconds.

Step 5: Press **HOLD** to save change.

(Mode 95) Message Waiting Ring Time

When a Station Port has a Message Waiting it can be set to give a RING RING at a programmable interval. If the Station is answered during the ringing it can be set to call back to the Station that set the message.

The Message Waiting Ring Time can be set from 1 to 15 minutes. If set to 0 there is no ring for Message Waiting.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

See (Station Programming Section - Mode 14) Automatic Message Callback for how to set a Station to automatically call back the Station leaving the message.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **95**

```
M:95                0
SLP MESSAGE RING
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set to no ring for Message waiting.

```
M:95                0
SLP MESSAGE RING
```

Step 4: Enter Message Waiting Ring Time **1 - 15**

e.g. Set Stations to ring every 2 minutes for Message Waiting.

```
M:95                2
SLP MESSAGE RING
```

Step 5: Press **HOLD** to save change.

```
*:95                2
SLP MESSAGE RING
```

(Mode 96) Set SLP Special Tone

When a message has been set to a single-line telephone, a Message Waiting Lamp can be set to indicate that a message is waiting. When a single-line telephone goes off-hook and there is a Message Waiting, the single-line telephone can be given a special tone to indicate that a message is waiting.

Note: Use of the Special Tone for Message Waiting Indication on single-line telephones is not necessary when using Message Waiting Lamps.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **96**

```
M:96          YES
SLP SPECIAL TONE
```

Step 3: Press **MSG** (Yes) for Special Tone or **FLASH** (No) for normal Dial Tone.

e.g. Set to receive normal Dial Tone.

```
M:96          NO
SLP SPECIAL TONE
```

Step 4: Press **HOLD** to save change.

```
*:96          NO
SLP SPECIAL TONE
```

(Mode 97) SLP Basic or Advanced Ringing

This mode is currently not used. It will be available in later versions of software.

(Mode 98) Urgent Call Time

When a Single-line Telephone goes off-hook it can be made to call the Operator after a period of time to notify about the off-hook condition. Urgent Call Time sets the time after which the off-hook Single-line Telephone will ring the Operator.

The Urgent Call Time can be set from 1 to 9999 seconds. If set to 0 there is no Urgent Call Time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **98**

```
M:98                0
URGENT CALL TIME
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set to no Urgent Call Time.

```
M:98                0
URGENT CALL TIME
```

Step 4: Enter Urgent Call Time **1 -9999**

e.g. Set SLP to ring after 2 minutes.

```
M:98              120
URGENT CALL TIME
```

Step 5: Press **HOLD** to save change.

```
*:98              120
URGENT CALL TIME
```

SYSTEM PROGRAMMING SECTION

System Programming Section

System Programming is divided into three separate sections for ease of access. The sections are Trunk Programming Section, Station Programming Section, and System Programming Section.

System Programming Section has been grouped into categories.

- General Defaults
- Feature Access Codes
- Tenant Service
- System Alarms
- Paging
- External Relay Controls
- Door Phone
- Voice Mail Interface
- Inband Signaling 2
- Toll Restriction
- Automatic Route Selection

General Defaults

(Mode 01) System Password

The System Password is used when accessing System Programming.

The System Password is a combination of up to six keys (0 - 9, *, #).

Refer to the start of the *Programming Guide* on how to enter System Programming.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **01**

e.g Default password

```
M:01        123
PASSWORD
```

Step 3: Press **FLASH** to erase an existing or default password.

```
M:01
PASSWORD
```

Step 4: Enter new password (up to 6 keys).

e.g. Enter key combination

```
M:01        #92*13
PASSWORD
```

Step 5: Press **HOLD** to save new password.

```
*:01        #92*13
PASSWORD
```

(Mode 02) Clock Display Format

The clock display on LCD Keyphones can be set to either 12 Hour or 24 Hour format. This mode also sets the format used with the SMDR output of Call Records.

See (System Programming Section - Mode 09) System Date & Time for how to change the system date and time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **02**

```
M:02      24 HOUR
CLOCK FORMAT
```

Step 3: Press **MSG** for 12 Hour or **FLASH** for 24 Hour.

e.g. Set to 12 Hour format

```
M:02      12 HOUR
CLOCK FORMAT
```

Step 4: Press **HOLD** to save change.

```
*:02      12 HOUR
CLOCK FORMAT
```

(Mode 03) Automatic Night Transfer on Weekends

When the system using Night Service has been set to use Automatic Night Transfer for automatically switching between Day Mode and Night Mode, it is often undesirable to have the system stay in Night Mode on weekends.

The system can be set to ignore Automatic Night Transfer on weekends. Thus, when the system switches to Night Mode on Friday, it stays in Night Mode until switching to Day Mode on Monday.

Note: Automatic Night Transfer on Weekends has no affect when Night Service is set using Manual Night Transfer.

Refer to the *Easy Reference Guide* on how to set Night Service and Automatic Night Transfer.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **03**

```
M:03              NO
WEEKEND TRANSFER
```

Step 3: Press **MSG** (Yes) for stay in Night Mode or **FLASH** (No) for Night Transfer.

e.g. Set to stay in Night Mode for weekend.

```
M:03             YES
WEEKEND TRANSFER
```

Step 4: Press **HOLD** to save change.

```
*:03             YES
WEEKEND TRANSFER
```

(Mode 04) Conference Tone

When a Conference is established by a Station a Tone can be used to signal to the parties in the Conference that they are in a Conference. The Conference Tone is generated once every 32 seconds. (**MSG** = Yes = Conference Tone)

Programming Procedure:
See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Conference Tone.

(Mode 05) Transfer Call on Hook Down

To transfer a Trunk or Station to another Station, the call is first put on hold, the receiving Station is called, then the **TRF** key is pressed to transfer the Trunk or Station. An alternate method is available which merely involves hanging up to actually do the transfer instead of pressing the **TRF** key.
(**MSG** = Yes = Transfer on Hook Down, **FLASH** = No = Press **TRF** key to transfer)

Programming Procedure:
See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Transfer Call on Hook Down.

(Mode 06) Headset Operation

Individual Keyphones can be set to work with Headset Operation. Headset Operation is switched On and Off from each individual Keyphone. All Keyphones can be restricted from setting Headset operation.
(**MSG** = Yes = Allow Stations to be set for Headset Operation)

Note: Only certain types of Keyphone can use Headset operation. Headset Operation also stops the Keyphone from being used in Handsfree mode.

Refer to the *Special Feature Section - Headset Operation* on how to set Headset Operation can be set for a Keyphone.

Programming Procedure:
See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Headset Operation.

(Mode 07) Local Digit Length

When using the ATLAS EX-T1 Card the system can be set up for 10 digit local dialing. To ensure proper outbound dialing from the ATLAS EX-T1 card.

(**MSG** = Yes = Allow 10-digit dialing out over the ATLAS EX-T1 card)

Programming Procedure:
See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Headset Operation.

(Mode 08) Set Voice Mail Wake-up

When using the 742 dial code for wake-up the system can be set to automatically call the Voice mail with integration to allopw the end user to enter their wake-up call through the Mailbox.

(**MSG** = Yes = Allow Wake-up feature through Voice Mail)

Programming Procedure:
See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Headset Operation.

(Mode 09) System Date & Time

The System is equipped with a real-time clock.

The real-time clock is used for setting the start time of Trunk Calls and for the date and time displayed on the LCD displays.

See (System Programming Section - Mode 02) Clock Display Format to change the time format on the LCD display between 24 Hour and 12 Hour.

Refer to the *Easy Reference Guide* on how to set the System Date and Time from the Console or Second Console.

Day of Week (0 = Sun, 1 = Mon, 2 = Tues, 3 = Wed, 4 = Thurs, 5 = Fri, 6 = Sat)

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **09**

e.g. The current Date is shown.

```
M:09 1
Date     98/01/01
```

Step 3: Enter new Date - must be **YYMMDD**

e.g. 981108 for 8th November 1998

```
M:09 1
Date     98/11/08
```

Step 4: Display automatically changes.
Enter new Time - must be **HHMM** (In 24 Hour format)

e.g. 1547 for 3:47 in the afternoon.

```
M:09 2
Time        15:47
```

Step 5: Display automatically changes.
Enter Day of Week **0 - 6**

e.g. 4 for Thursday

```
M:09 3
Day of Week  Thu
```

Step 6: Press **HOLD** at any stage to save a change.

```
*:09 3
Day of Week  Thu
```

(Mode 12) SLP Long Ring

The system uses different ring cadences to SLP ports to distinguish between different types of calls. Long for Trunk ringing, short for Intercom ringing, irregular for Hold Recall. Some types of devices connected to SLP ports do not like the shorter or irregular ring cadences and require a long ring cadence to work correctly. (**MSG** = Yes = Use only Long Ring, **FLASH** = NO = normal)

Programming Procedure:
See (System Programming Section – Mode 03) Automatic Night Transfer and follow the programming procedure for setting SLP Long Ring.

(Mode 13) Second Level Softkey Access

Each Keyphone can have two levels of Softkeys programmed. Access to the second level by pressing the FLASH key when the Keyphone is idle is restricted. (**MSG** = Yes = Allow access, **FLASH** = NO = restricted)

See (Station Programming Section – Mode 73) Softkey Assignment for how to program Softkeys.

Programming Procedure:

See (System Programming Section – Mode 03) Automatic Night Transfer and follow the programming procedure for setting Second Level Softkey Access

Feature Access Codes

There are five Feature Access Codes that can be set to customize the system operation for users. These codes can be changed to allow flexibility in Station numbering schemes. The Feature Access Codes are listed by priority below:

- Operator Access Code
- Trunk Hunt Group Access Code
- Trunk Hunt Group 8 Access Code
- Dial 7 Feature Access Code
- Intercom Call Access Code

(Mode 15) Operator Access Code

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s). The access code for calling the Operator can be programmed. If 0 is used for the Operator Access Code then 0 should not be set for any other access code.

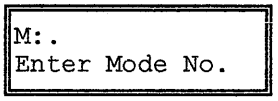
See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as the Console.

See (Station Programming Section) Operator Destination for how to set an alternate Operator for the Operator Stations.

See (System Programming Section - Mode 22) Tenant Operators for how to set an Operator for a Tenant Group.

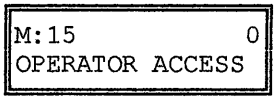
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.



Step 2: Enter Mode **15**

e.g. "o" is the default code.



Step 3: Press **FLASH** to clear.

```
M:15
OPERATOR ACCESS
```

Step 4: Enter new access code **0 - 9, *, #**

e.g. Set 1 for Operator Access

```
M:15                1
OPERATOR ACCESS
```

Step 5: Press **HOLD** to save change.

```
*:15                1
OPERATOR ACCESS
```

(Mode 16) Trunk Hunt Group Access Code

Automatic Trunk Selection can be done by dialing an access code. If 9 is used for the Trunk Hunt Group Access Code then 9 should not be set for any other access code.

When accessing a Trunk Hunt Group, either the Trunk Hunt Group assigned to the Station is automatically used, or a second digit (1 - 8) must be dialed to specify which Trunk Hunt Group to use.

See (Trunk Programming Section - Mode 50) Trunk Hunt Group Programming for how to set up Trunk Hunt Groups.

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for how to set the default Trunk Hunt Group for a Station.

Programming Procedure:
See (System Programming Section - Mode 15) Operator Access Code for how to set the Trunk Hunt Group Access Code.

(Mode 17) Trunk Hunt Group 8 Access Code

A second Trunk Hunt Group Access Code is provided for accessing Trunk Hunt Group 8. If 8 is used for the Trunk Hunt Group 8 Access Code then 8 should not be set for any other access code.

See (Trunk Programming Section - Mode 50) Trunk Hunt Group Programming for how to set up Trunk Hunt Groups.

Programming Procedure:
See (System Programming Section - Mode 15) Operator Access Code for how to set the Trunk Hunt Group 8 Access Code.

(Mode 18) Dial 7 Feature Access Code

A number of features are available to each Station which all start with the same access code. This allows the features to be accessed by Single-line Telephones. If 7 is used for the Dial 7 Feature Access Code then 7 should not be set for any other access code.

Refer to the *Easy Reference Guide* on how to use the Dial 7 Features from a Station.

See (Station Programming Section) Station Class-of-Service for how to restrict Dial 7 Features to Stations.

Programming Procedure:
See (System Programming Section - Mode 15) Operator Access Code for how to set the Dial 7 Feature Access Code.

(Mode 19) Intercom Call Access Code

A Intercom Call Access Code can be set for access Stations. If a Intercom Access Code is set than it must be dialed to provide access to Station numbers.

See (Station Programming Section - Mode 70) Flexible Station Number Assignment for how to set a Flexible number for a Station.

Programming Procedure:
See (System Programming Section - Mode 15) Operator Access Code for how to set the Intercom Call Access Code.

Tenant Service

(Mode 20) Trunk Tenant Service

Up to eight Tenants can be supported on the same system. Stations can be restricted to accessing Trunks with the same Tenant number. 0 means the Trunk is unrestricted and can be accessed by any Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **20**

```
M:20 .
TRUNK TENANT
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 1

```
M:20 01          2
TRUNK TENANT
```

Step 4: Press **FLASH** to clear (an existing Tenant number).

```
M:20 1           0
TRUNK TENANT
```

Step 5: Enter new Tenant number **1 - 8**

e.g. Set Trunk 1 to Tenant 3

```
M:20 1           3
TRUNK TENANT
```

Step 6: Press **HOLD** to save change.

```
*:20 1           3
TRUNK TENANT
```

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:20 2           0
TRUNK TENANT
```

(Mode 21) Station Tenant Service

Up to eight Tenants can be supported on the same system. Stations can be restricted to calling Stations with the same Tenant number. 0 means the Station is unrestricted and can be called by any Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **21**

```
M:21 .
STATION TENANT
```

Step 3: Enter Port number **01 - 44**

e.g. Port 12 has not been assigned a Tenant number.

```
M:21 12          0
  ST:12
```

Step 4: Press **FLASH** to clear (an existing Tenant number).

```
M:21 12          0
  ST:12
```

Step 5: Enter new Tenant number **1 - 8**

e.g. Set Station 12 to Tenant 3

```
M:21 12          3
  ST:12
```

Step 6: Press **HOLD** to save change.

```
*:21 12          3
  ST:12
```

Step 7: (Optional) Press **TRF** to scroll forward to next Port or MIC to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Station

```
M:21 13          0
  ST:13
```

(Mode 22) Tenant Operators

Each Tenant can be assigned a different Station to ring when the Operator is called. The Tenant Operator does not have to be assigned the same Tenant number. The Station assigned as Tenant Operator has priority over the assigned system Operator. If no Tenant Operator is assigned then the system Operator is used.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as the Console.

See (Station Programming Section) Operator Destination for how to set an alternate Operator for the Operator Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **22**

```
M:22 .
TENANT OPERATORS
```

Step 3: Enter Tenant number **1 - 8**

e.g. Tenant 3

```
M:22 3
TENANT OPERATORS
```

Step 4: Press **FLASH** to clear (an existing Station Port).

```
M:22 3
TENANT OPERATORS
```

Step 5: Enter new Station Port **01 - 44**

e.g. Set Tenant 3 Operator to Station port 021.

```
M:22 3          21
TENANT OPERATORS
```

Step 6: Press **HOLD** to save change.

```
*:22 3          21
TENANT OPERATORS
```

Step 7: (Optional) Press **TRF** to scroll forward to next Tenant or **MIC** to move backward to previous Tenant. Repeat from Step 4.

e.g. Move to next Tenant.

```
M:22 4
TENANT OPERATORS
```

(Mode 23) Unrestricted Tenant Intercom Access

Each Tenant is restricted from calling Stations assigned to other Tenants. Each Tenant can be set for unrestricted Intercom access.

Intercom restriction does not apply when calling Operator Stations.

See (Station Programming Section) Operator Destination for how to set an alternate Operator for the Operator Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **23**

```
M:23 .
TENANT INTERCOM
```

Step 3: Enter Tenant number **1 - 8**

e.g. Tenant 5

```
M:23 5          NO
TENANT INTERCOM
```

Step 4: Press **MSG** for Intercom access (Yes) or **FLASH** (No) for No Intercom access.

e.g. Set Tenant 5 Stations to unrestricted Intercom access.

```
M:23 5         YES
TENANT INTERCOM
```

Step 5: Press **HOLD** to save change.

```
*:23 5         YES
TENANT INTERCOM
```

Step 6: (Optional) Press **TRF** to scroll forward to next Tenant number or **MIC** to move backward to previous Tenant number. Repeat from Step 4.

e.g. Move to next Tenant

```
M:23 6          NO
TENANT INTERCOM
```

System Alarms

There are three sets of System Alarms, each effective during a specific time of the week. Monday to Friday inclusive (Mode 30), Saturday (Mode 31), and Sunday (Mode 32).

(Mode 30) Weekday System Alarms

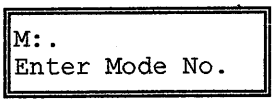
There can be up to eight System Alarms set for the weekdays (effective for Monday to Friday inclusive). A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

See (Station Programming Section - Mode 07) Ring for System Alarm for how to stop the System Alarm for individual Keyphones.

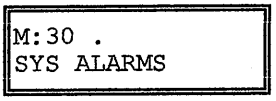
Refer to the *Easy Reference Guide* for how to set Station Alarms.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

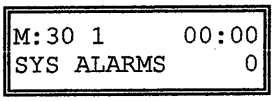


Step 2: Enter Mode **30**

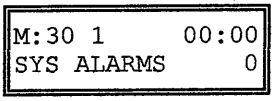


Step 3: Enter Alarm number **1 - 8**

e.g. Alarm 1 is currently not set

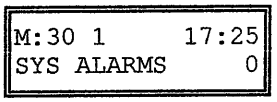


Step 4: Press **FLASH** to clear (an existing Alarm).



Step 5: Enter new Alarm Time (must be HHMM in 24 Hour format).

e.g. 1725 for 5:25 in the afternoon.



Step 6: Enter Alarm duration **1 - 9999** seconds

e.g. Set to 15 seconds.

```
M:30 1      17:25
SYS ALARMS     15
```

Step 7: Press **HOLD** to save change.

```
*:30 1      17:25
SYS ALARMS     15
```

Step 8: Move to next alarm. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next alarm
No Alarm has been set.

```
M:30 2      00:00
SYS ALARMS      0
```

(Mode 31) Saturday System Alarms

There can be up to eight System Alarms set for Saturday. A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

Programming Procedure:
See (System Programming Section - Mode 30) Weekday System Alarms and follow the programming procedure to set Saturday System Alarms.

(Mode 32) Sunday System Alarms

There can be up to eight System Alarms set for Sunday. A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

Programming Procedure:
See (System Programming Section - Mode 30) Weekday System Alarms and follow the programming procedure to set Sunday System Alarms.

(Mode 33) Station Alarm Duration

The duration for a Station to ring for a Wake-Up / Remind Call can be set.

The Station Alarm Duration can be set from 10 to 9999 seconds.

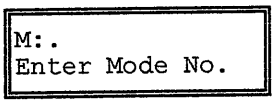
Refer to the *Easy Reference Guide* for how to set Station Wake-Up / Remind Calls.

See (Station Programming Section - Mode 39) Set Wake-up / Remind Calls for how to restrict a Station from setting a Wake-up / Remind Call.

See (Operator Feature Section) Hotel Features for how to set a Wake-up / Remind Call for a Station from an Operator Station.

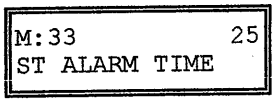
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

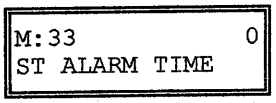


Step 2: Enter Mode **33**

e.g. Station Alarm Time is 25 seconds.

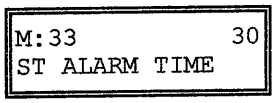


Step 3: Press **FLASH** to clear (an existing time).

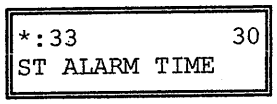


Step 4: Enter Station Alarm Time **10 - 9999**

e.g. Set Station Alarm Time to 30 seconds.



Step 5: Press **HOLD** to save change.



(Mode 34) DVA Port

When a Station has been set up with a Wake-up / Remind Call the Station will ring at the programmed time. When answered the Station will receive either music or be connected to the DVA Port. If there is no assigned DVA Port or if the DVA Port is busy then the Station will only get music.

A Station Hunt Group can also be assigned as the DVA Port. Only one Station from the Station Hunt Group will be selected.

Refer to the *Easy Reference Guide* for how to set Station Wake-Up / Remind Calls.

See (Station Programming Section - Mode 39) Set Wake-up / Remind Calls for how to restrict a Station from setting a Wake-up / Remind Call.

See (Operator Feature Section) Hotel Features for how to set a Wake-up / Remind Call for a Station from an Operator Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **34**

```
M:34
DVA PORT
```

Step 3: Press **FLASH** to erase (an existing Station Port or Station Group).

```
M:34
DVA PORT
```

Step 4: Enter a new Station Port **01 - 44**

e.g. Set to Port 13

```
M:34              13
DVA PORT
```

OR Press **MSG** for Station Hunt Group **1 - 9**

e.g. Set to Station Hunt Group 1

```
M:34        STGP:1
DVA PORT
```

Step 5: Press **HOLD** to save change.

```
*:34              13
DVA PORT
```

Paging

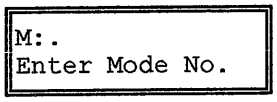
(Mode 35) Zone Paging Port Assignment

There can be up to eight Zones assigned for External Paging. The eighth Zone is the External Paging connection built into the system. The other seven Zones use normal Station Ports.

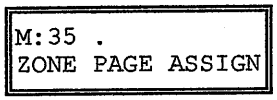
Refer to the *Easy Reference Guide* for how to do Paging.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

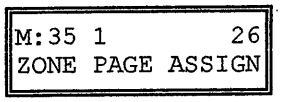


Step 2: Enter Mode **35**

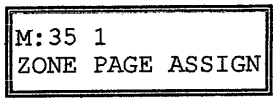


Step 3: Enter Zone number **1 - 7**

e.g. Zone 1 is currently set to Port 26.

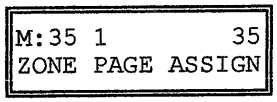


Step 4: Press **FLASH** to erase (an existing Port number).

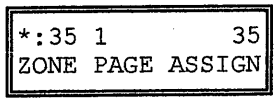


Step 5: Enter new Port number **01 - 44**

e.g. Set to Port 35

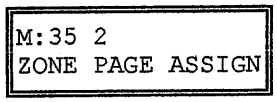


Step 6: Press **HOLD** to save change.



Step 7: (Optional) Press **TRF** to scroll forward to next Zone or MIC to move backward to previous. Repeat from next Step 4.

e.g. Move to next Zone
No Port has been set



(Mode 36) Page Tone

When making a Paging Call, a tone can be given at the start to announce the Paging Call.

Refer to the *Easy Reference Guide* for how to do Paging.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **36**

```
M:36              NO
PAGE TONE
```

Step 3: Press **MSG** (Yes) for Page Tone or **FLASH** (No) for none.

e.g. Set to use Page Tone

```
M:36              YES
PAGE TONE
```

Step 4: Press **HOLD** to save change.

```
*:36              YES
PAGE TONE
```

(Mode 37) Page Music Source

There are three music sources available to the External Paging Output, one internal and two external. The two external music sources each require an external music source to be connected to the system.

Refer to the *Installation Guide* for more information on connecting an External Music Source.

Refer to the *Easy Reference Guide* for how to do Paging.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **37**

```
M:37              1
PAGE MUSIC SOURC
```

Step 3: Press **1** (internal), **2** (external 1), or **3** (external 2).

e.g. Set to External Music Source 1

```
M:37              2
PAGE MUSIC SOURC
```

Step 4: Press **HOLD** to save change.

```
*:37              2
PAGE MUSIC SOURC
```

Dry Contact Relay Control

(Mode 40) Dry Contact Relay Control

There are 6 programmable Dry Contact Relays located on the ATLAS EX-MDF. They can be used in conjunction with Station Ports, Trunk Lines, Loud Bells 1-4, Zone paging, Music on Hold Power Control 1-2 or Door Lock control.

Refer to *Installation Manual* for more information on connecting Dry Contact Relays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **40**

```
M:40 .
DRY CONTACT CTRL
```

Step 3: Enter a Dry Contact Relay **1 - 6**

e.g. Enter Dry Contact Relay 1

```
*:40 1
DRY CONTACT CTRL
```

Step 4: Enter Station Port **01 - 44** or Press **MSG** to Scroll through the other options.

e.g. Press MSG "once" for TK
Enter 01 for Trunk 01

```
M:40 1      TK:01
DRY CONTACT CTRL
```

Step 5: Press **HOLD** to save change.

e.g. Dry Contact Relay 1 is set for Trunk 1

```
*:40 1      TK:01
DRY CONTACT CTRL
```

Step 6: (Optional) Press **TRF** to scroll forward to next Dry Contact Relay or **MIC** to move backward to previous Dry Contact Relay. Repeat from Step 4.

e.g. Move to next Dry Contact Relay

```
M:40 2
DRY CONTACT CTRL
```

(Mode 41) Dry Contact Relay Default

The 6 Dry Contacts Relays can be programmed to be normally open or normally closed.

Refer to *Installation Manual* for more information on connecting Dry Contact Relays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **41**

```
M:41 .
DRY CONTACT DEF.
```

Step 3: Enter Dry Contact Relay **1 – 6**.

e.g. Enter "1" for Dry Contact Relay 1
Default is "OPEN".

```
M:41 1       OPEN
DRY CONTACT DEF.
```

Step 4: Press **FLASH** for Closed or **MSG** for Open.

e.g. Changed to Closed

```
*:41 1     CLOSED
DRY CONTACT DEF.
```

Step 5: Press **HOLD** to save change.

e.g. Dry Contact Relay 1 is closed

```
*:41 1     CLOSED
DRY CONTACT DEF.
```

Step 6: (Optional) Press **TRF** to scroll forward to next Dry Contact Relay or **MIC** to move backward to previous Dry Contact Relay. Repeat from Step 4.

e.g. Move to next Dry Contact Relay

```
M:41 2       OPEN
DRY CONTACT DEF.
```

Door Phone

(Mode 45) Door Phone Ring Group 1

When a Station is set to work as a Door Phone, a ring group of Station Ports need to be assigned. Lifting the handset automatically rings the Station Ports assigned to Ring Group 1. All Station Ports in Ring Group 1 will ring if idle.

See (Station Programming Section - Mode 32) Ring Door Phone Group 1 for how to set a Station Port to work as a Door Phone Port.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **45**

```
M:45 .
DOOR RING GP 1
```

Step 3: Enter position number **01 - 16**

e.g. No port has been set for position 1

```
M:45 01        26
DOOR RING GP 1
```

Step 4: Press **FLASH** to erase (an existing Port number).

```
M:45 01
DOOR RING GP 1
```

Step 5: Enter new Port number **01 - 44**

e.g. Set to Port 35.

```
M:45 01        35
DOOR RING GP 1
```

Step 6: Press **HOLD** to save change.

```
*:45 01        35
DOOR RING GP 1
```

Step 7: (Optional) Press **TRF** to scroll forward to next position or MIC to move backward to previous position. Repeat from Step 4.

e.g. Move to next position
No Port has been set

```
M:45 02
DOOR RING GP 1
```

(Mode 46) Door Phone Ring Group 2

When a Station is set to work as a Door Phone, a ring group of Station Ports need to be assigned. Lifting the handset automatically rings the Station Ports assigned to Ring Group 2. All Station Ports in Ring Group 2 will ring if idle.

See (Station Programming Section - Mode 33) Ring Door Phone Group 2 for how to set a Station Port to work as a Door Phone Port.

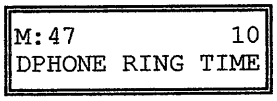
Programming Procedure:
See (System Programming Section - Mode 45) Door Phone Ring Group 1 and follow the programming procedure for setting Door Phone Ring Group 2.

(Mode 47) Door Phone Ring Time

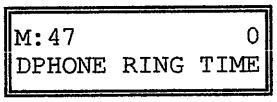
The Ring Time for a dedicated Door Phone can be set from 5 to 60 seconds. The Door Phone will ring Door Phone Group 1.
See (Station Programming Section – Mode 32) Ring Door Phone Group 1 and (Station Programming Section – Mode 33) Ring Door Phone Group 2 for how to set a normal Station as a Door Phone.

Programming Procedure:

Step 1: Enter Mode 47

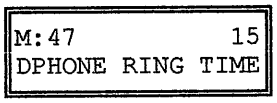


Step 2: Press **FLASH** to clear an existing time.

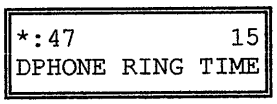


Step 3: Enter new Door Phone ring time.

e.g. Set to Port 15.



Step 4: Press **HOLD** to save change.



Voice Mail Interface

(Mode 50) Voice Mail Station Hunt Group (9)

The system has nine Station Hunt Groups. The first eight are regular Station Hunt Groups that can be used for many purposes while Station Hunt Group 9 is used specifically for Voice Mail.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set a normal Station Hunt Group.

Refer to the *Easy Reference Guide* on how to access a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **50**

```
M:50 .
VM ST HUNT GROUP
```

Step 3: Enter a memory position **01 – 16 Note:** The memory position is a counter to keep track of how many ports have been entered, up to 16 ports can be assigned.

e.g. The fourth position is not set.

```
M:50 04
VM ST HUNT GROUP
```

Step 4: Press **FLASH** to clear (an existing Station Port number).

```
M:50 04
VM ST HUNT GROUP
```

Step 5: Enter new Station Port number **01 - 44**

e.g. Set to Port 21.

```
M:50 04        21
VM ST HUNT GROUP
```

Step 6: Press **HOLD** to save change.

```
*:50 04        21
VM ST HUNT GROUP
```

Step 7: (Optional) Press **TRF** to scroll forward to next position or MIC to move backward to previous position. Repeat from Step 4.

e.g. Move to next position

```
M:50 05
VM ST HUNT GROUP
```

(Mode 51) Use Voice Mail Inband Signaling

When using Voice Mail with the system, integration between the Voice Mail and system can be either SMDI or Inband Signaling.

Refer to the *Installation Guide* for more information on connecting a Voice Mail system.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **51**

```
M:51              NO
USE VM INBAND
```

Step 3: Press **MSG** (YES) for Inband Signaling or **FLASH** (No) for none.

e.g. Set to use Inband Signaling

```
M:51             YES
USE VM INBAND
```

Step 4: Press **HOLD** to save change.

```
*:51             YES
USE VM INBAND
```

(Mode 52) Voice Mail Inband Signaling Packets

This mode is currently not used. It will be available in later versions of software.

(Mode 53) Voice Mail Trunk Incoming Call Packets

This mode is currently not used. It will be available in later versions of software.

(Mode 54) Inband Signaling DTMF Tone Length

The Inband Signaling DTMF Tone Length can be set from 50 ms to 250 ms (n x 10 ms).

The Inband Signaling DTMF Tone Length determines how quickly the DTMF is generated for Inband Signaling. Setting the DTMF Tone Length too short results in the device receiving the Inband Signaling to miss digits or ignore the Inband Signaling completely.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **54**

e.g. Currently set to 100 ms

```
M:54          10
INBAND DTMF LEN
```

Step 3: Press **FLASH** to clear (an existing length).

```
M:54           0
INBAND DTMF LEN
```

Step 4: Enter new DTMF Tone Length **5 - 250**.

e.g. Set to 80 ms (n = 8)

```
M:54           8
INBAND DTMF LEN
```

Step 5: Press **HOLD** to save change.

```
*:54           8
INBAND DTMF LEN
```

Note: The minimum Inband Signaling DTMF Tone Length is 50 ms (n = 5), and the maximum is 250 ms (n = 25).

Inband Signaling 2

(Mode 55) Use Inband Signaling 2

This mode is currently not used. It will be available in later versions of software.

(Mode 56) Inband Signaling Packets 2

This mode is currently not used. It will be available in later versions of software.

(Mode 57) Trunk Incoming Call Packets 2

This mode is currently not used. It will be available in later versions of software.

Toll Restriction

Toll Plans are designed to restrict Station user access for making outgoing calls. There are fifteen separate Toll Plans.

Toll Plan	Restriction	Key
0	No Restriction	FLASH
1	Fully Programmable	1
2	Fully Programmable	2
3	Fully Programmable	3
4	Fully Programmable	4
5	Fully Programmable	5
6	Fully Programmable	6
7	1st digit cannot be 0	7
8	1st digit cannot be 1	8
9	1st digit cannot be 0 or 1	9
A	1st digit must be 1	0
B	1st two digits cannot be 00	*
C	1st two digits cannot be 09	#
D	Use only Common Unrestricted Numbers	CONF
E	Use only System Speed Dial	CAMP
F	No outward dialing	REDIAL

If a Station Port is set to Toll Plan 0, there is no call restriction.

Toll Plans 1 to 6 have a (Mode 73) Digit Length Restriction and can have a Class-of-Restriction (Toll Plan) set for each Trunk. See (Mode 74) Class-of-Restriction - Trunk, (Mode 75) Local Call Restriction, and (Mode 76) Long Distance Call Restriction.

Toll Plans 1 to F can be further restricted using Common Restriction tables. See (Mode 70) Common Restricted Numbers and (Mode 71) Common Unrestricted Numbers.

See (Mode 60) Station Toll Plan Assignment - Day and (Mode 61) Station Toll Plan Assignment - Night for setting the Toll Plan for Stations.

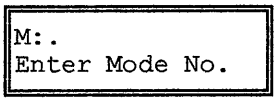
(Mode 60) Station Toll Plan Assignment - Day

Each Station Port can be assigned two different Toll Plans. One for Day Mode and one for Night Mode.

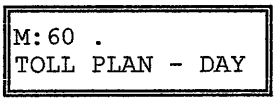
Toll Plans are designed to restrict what calls the user can make on the system. There are fifteen separate Toll Plans. If a Station Port is set to Toll Plan 0, it will have no call restriction.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

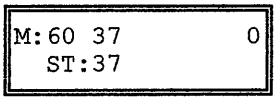


Step 2: Enter Mode **60**

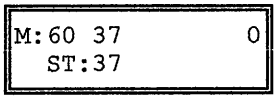


Step 3: Enter Port number **01 - 44**

e.g. Port 37 is Station number 37
Currently has no restriction

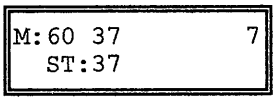


Step 4: Press **FLASH** to reset a Toll Plan to 0.

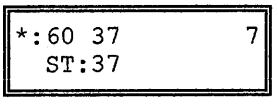


Step 5: Enter new Toll Plan **0 - F**

e.g. Set Port 37 to Toll Plan 7
Cannot dial numbers starting
With 0

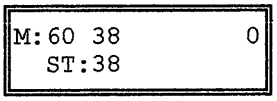


Step 6: Press **HOLD** to save change.



Step 7: Press **TRF** to scroll forward to next port or **MIC** to scroll backward to previous port.

e.g. Move to next Port
Port 38 currently has no
restriction



(Mode 61) Station Toll Plan Assignment - Night

Each Station Port can be assigned two different Toll Plans. One for Day Mode and one for Night Mode.

Toll Plans are designed to restrict what calls the user can make on the system. There are fifteen separate Toll Plans. If a Station Port is set to Toll Plan 0, it will have no call restriction.

See (System Programming Section - Mode 60) Station Toll Plan Assignment - Day and follow the programming procedure to assign a Toll Plan.

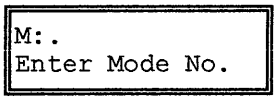
(Mode 62) Toll Restriction Override Password

Toll Restriction on a Trunk Line can be overridden by a password. There are eight Toll Restriction Override Passwords available to the system.

The password is a combination of up to six keys (0 - 9, *, #).

Programming Procedure:

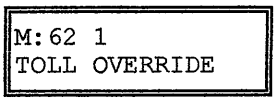
Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.



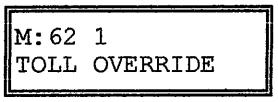
Step 2: Enter Mode **62**

Step 3: Enter Password number **1 - 8**

e.g. Password 1 is currently not set

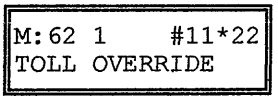


Step 4: Press **FLASH** to erase an existing password.

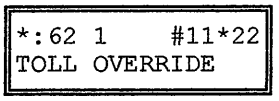


Step 5: Enter new password (up to 6 keys).

e.g. Enter key combination

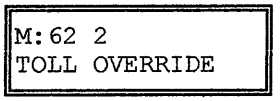


Step 6: Press **HOLD** to save new password.



Step 7: Move to next Password. Press **TRF** to scroll forward or **MIC** to move backward.

e.g. Move to next Password



(Mode 63) Speed Dial Toll Restriction Break Point

A range of System Speed Dial bins can be set to ignore Toll Restriction. The Speed Dial Break Point can be set from 100 to 499.

If the Break Point is set to 200 then System Speed Dial bins 100 - 199 are Toll Restricted while System Speed Dial bins 200 - 499 are **NOT** Toll Restricted.

Note: If a Station is set to Toll Plan 0 (No Restriction) then it can dial any System Speed Dial bins with NO restriction.

Refer to the *Easy Reference Guide* for how to program System Speed Dial numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **63**

```
M:63          200
SPD BREAK POINT
```

Step 3: Press **FLASH** to clear an existing Break Point.

```
M:63            0
SPD BREAK POINT
```

Step 4: Enter new Break Point.

e.g. Set Speed Dial bins 400 - 499 as NOT Toll Restricted

```
M:63          400
SPD BREAK POINT
```

Step 5: Press **HOLD** to save change.

```
*:63          400
SPD BREAK POINT
```

(Mode 64) Check-In Call Restriction

When the Operator uses the Check-In / Check-Out feature, the Operator can lock a Station, set Do-Not-Disturb, or change the Toll Restriction. The Toll Restriction for the Station can be set to either 0 for All Calls (Toll Plan 0), 1 for Local (Toll Plan 9), 2 for Credit Card (Toll Plan 4), and 3 for Speed Dial only (Toll Plan D).

The Toll Restriction that is used for restricting Local Calls can be programmed.

See (Operator Features Section) Hotel Features for how to set an alternate Operator for the Operator Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **64**

```
M:64 .
CHECK-IN TOLL RN
```

Step 3: Enter a position number **1 - 4**

e.g. Local restriction is set for Toll Plan 9

```
M:64 2          9
CHECK-IN TOLL RN
```

Step 4: Press **FLASH** to clear existing Toll Plan.

```
M:64 2
CHECK-IN TOLL RN
```

Step 5: Enter new Toll Plan **0 - F**

e.g. Set to Toll Plan 7 for Local and Credit Card calls

```
M:64 2          7
CHECK-IN TOLL RN
```

Step 6: Press **HOLD** to save change.

```
*:64 2          7
CHECK-IN TOLL RN
```

Step 7: Press **TRF** to scroll forward to next position or **MIC** to move backward.

e.g. Move to next number second number is currently set to 1975.

```
M:64 3          4
CHECK-IN TOLL RN
```

(Mode 70) Common Restricted Numbers

There can be up to eight Common Restricted Numbers set.

Common Restricted Numbers affect all Stations restricted by Toll Plans 1 to C and can be used for setting system-wide restrictions.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **70**

```
M:70 .
COMMON RESTRICT
```

Step 3: Enter a position number **1 - 8**.

e.g. first number is currently set to 1411

```
M:70 1    1411
COMMON RESTRICT
```

Step 4: Press **FLASH** to erase an existing number.

```
M:70 1
COMMON RESTRICT
```

Step 5: Enter new number up to 6 digits

e.g. Set number to 1900

```
M:70 1    1900
COMMON RESTRICT
```

Step 6: Press **HOLD** to save change.

```
*:70 1    1900
COMMON RESTRICT
```

Step 7: Press **TRF** to scroll forward or **MIC** to move backward to previous position.

e.g. Move to next number
second number is currently set 10 1975

```
M:70 2    1975
COMMON RESTRICT
```

(Mode 71) Common Unrestricted Numbers

There can be up to eight Common Unrestricted Numbers set.

Common Unrestricted Numbers affect all Stations restricted by Toll Plans 1 to F and can be used for setting system-wide restrictions.

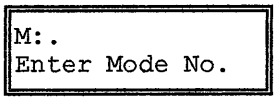
See (Mode 70) Common Restricted Numbers and follow the programming procedure to set Common Unrestricted Numbers.

(Mode 72) Long Distance Call Prefix

The Long Distance Call Prefix needs to be set for use with (Mode 76) Long Distance Call Restriction. These tables can be ignored by clearing the Long Distance Call Prefix.

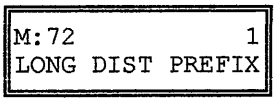
Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

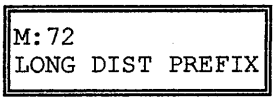


Step 2: Enter Mode **72**

e.g. Long Distance Call Prefix is 1

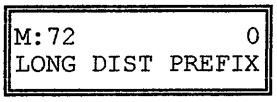


Step 3: Press **FLASH** to ignore Long Distance Call Restriction tables.

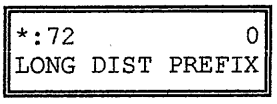


Step 4: Enter new Long Distance Call Prefix.

e.g. Set Long Distance Call Prefix to "0".



Step 5: Press **HOLD** to save change.



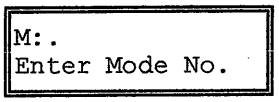
(Mode 73) Digit Length Restriction

Toll Plans 1 - 6 have a Digit Length Restriction (0 - 32).

Digit Length Restriction provides a simple call restriction. When set to 7 only local numbers can be dialed. When set to 0 there will be no Digit Length Restriction.

Programming Procedure:

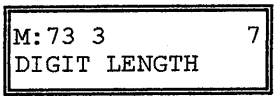
Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.



Step 2: Enter Mode **73**

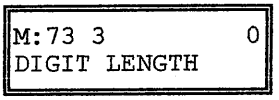
Step 3: Enter Toll Plan number **1 - 6**

e.g. Toll Plan 3 has Length Restriction 7



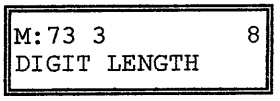
Step 4: Press **FLASH** to clear an existing length.

e.g. Set no Digit Length Restriction

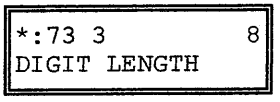


Step 5: Enter new Length Restriction **1 - 32**

e.g. Set Length Restriction to 8

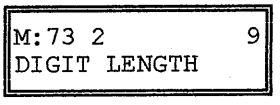


Step 6: Press **HOLD** to save change.



Step 7: Move to next Toll Plan. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to previous Toll Plan
Toll Plan 2 has Length Restriction 9



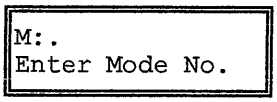
(Mode 74) Class-of-Restriction - Trunk

Toll Plans 1 - 6 can have a Class-of-Restriction (Toll Plan) set for each Trunk.

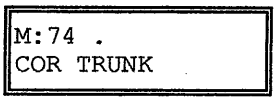
This allows very complex Toll Restrictions.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

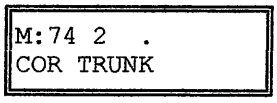


Step 2: Enter Mode **74**



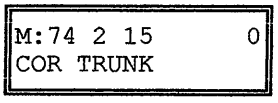
Step 3: Enter Toll Plan number **1 - 6**

e.g. Toll Plan 2



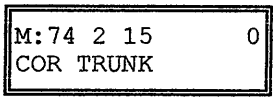
Step 4: Enter Trunk number **01 - 16**

e.g. Trunk 15 has Class-of-Restriction 0



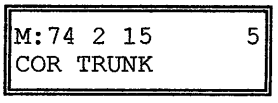
Step 5: Press **FLASH** to clear an existing Class-of-Restriction.

e.g. Set to Class-of-Restriction 0.

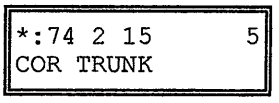


Step 6: Enter new Class-of-Restriction **1 - F**

e.g. Set to Class-of-Restriction 5

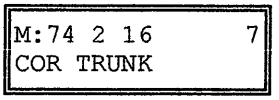


Step 7: Press **HOLD** to save change.



Step 8: Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk. Trunk 16 has Class-of-Restriction 7.



(Mode 75) Local Call Restriction

Class-of-Restrictions 1 - 6 each have two Call Restriction tables of 48 numbers. One set of tables is used for Local Call Restriction and the other for Long Distance Call Restriction. The tables can be used for listing which numbers to be allowed or denied.

The table default is Allow, so a Deny (**CAMP**) must be put at the top of the table when listing which numbers to be denied. When used as an "Allow" table only entries in the table will be allowed, everything else is automatically denied. When used as a "Deny" table only entries in the table will be denied, everything else is automatically allowed.

The digit * is a "wildcard" entry (* = all digits 0 - 9). More than one wildcard can be used in a number.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **75**

```
M:75 .
LOCAL RESTRICT
```

Step 3: Enter Class-of-Restriction number **1 - 6**

e.g. Class-of-Restriction 2

```
M:75 2  .
LOCAL RESTRICT
```

Step 4: Enter position number **01 - 48**

e.g. position 1 has no number set

```
M:75 2 01
LOCAL RESTRICT
```

Step 5: Press **FLASH** to erase an existing number.

```
M:75 2 01
LOCAL RESTRICT
```

1. Press **CAMP** to set the table for Deny.

e.g. Set table to Deny

```
M:75 2 01 D
LOCAL RESTRICT
```

2. Enter new number (up to 6 digits).

e.g. Enter number 5571

```
M:75 2 01 5571
LOCAL RESTRICT
```

3. Enter new number (up to 6 digits) with a wildcard.

e.g. Enter number 3*7
(i.e. 307, 317, 327, 337, ..., 397)

```
M:75 2 01 3*7
LOCAL RESTRICT
```

Step 6: Press **HOLD** to save change.

```
*:75 2 01 3*7
LOCAL RESTRICT
```

Step 7: Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position.
Position 2 has number 55567
entered

```
M:75 2 02 55567
LOCAL RESTRICT
```

(Mode 76) Long Distance Call Restriction

Class-of-Restrictions 1 - 6 each have two Call Restriction tables of 48 numbers. One set of tables is used for Local Call Restriction and the other for Long Distance Call Restriction. The tables can be used for listing which numbers to be allowed or denied.

When using the Long Distance Restriction tables, the Long Distance Call Prefix is assumed so it is not required to be entered into the tables.

The table default is Allow, so a Deny (**CAMP**) must be put at the top of the table when listing which numbers to be denied. When used as an "Allow" table only entries in the table will be allowed, everything else is automatically denied. When used as a "Deny" table only entries in the table will be denied, everything else is automatically allowed.

See (Mode 72) Long Distance Call Prefix for how to set the Long Distance Call Prefix.

See (Mode 75) Local Call Restriction and follow the programming procedure to set Long Distance Call Restriction tables.

(Mode 77) PABX Trunk Access Code

A PABX Trunk Access Code can be set for PABX Lines.

When a Trunk is as a PABX Line the PABX Trunk Access Code will not be appear on the SMDR output.

See (Trunk Programming Section - Mode 01) Trunk Type for setting a Trunk as a PABX Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **77**

e.g. PABX Trunk Access Code is 1

```
M:77                1
PABX TK ACCESS
```

Step 3: Enter new PABX Trunk Access Code.

e.g. Set PABX Trunk Access Code to 0

```
M:77                0
PABX TK ACCESS
```

Step 4: Press **HOLD** to save change.

```
*:77                0
PABX TK ACCESS
```

(Mode 78) Ignore PABX Access Code

The system can be set to ignore the PABX Access Code on PABX Lines when using Toll Restriction.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **78**

```
M:78                NO
IGNORE PABX CODE
```

Step 3: Press **MSG** to ignore PABX Access Code or **FLASH** to not ignore.

e.g. Set to ignore PABX Access Code

```
M:78                YES
IGNORE PABX CODE
```

Step 4: Press **HOLD** to save change.

```
*:78                YES
IGNORE PABX CODE
```

Automatic Route Selection

(Mode 80) Use Automatic Route Selection

Automatic Route Selection can be used to direct calls to specific Trunk Hunt Groups when placing outside calls. This allows the user to access the most economical line available.

When Automatic Route Selection is set the system waits until Keyphone users have dialed three or four digits before accessing a Trunk. For Single-Line Telephone users the system waits until there is a pause in dialing before accessing a Trunk.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **80**

```
M:80                NO
AUTO ROUTE SELCT
```

Step 3: Press **MSG** to use ARS (Yes) or **FLASH** to not use ARS (No).

e.g. Set to use Automatic Route Selection

```
M:80               YES
AUTO ROUTE SELCT
```

Step 4: Press **HOLD** to save change.

```
*:80               YES
AUTO ROUTE SELCT
```

(Mode 81) Force ARS

A Station can be forced to use Automatic Route Selection when trying to access an individual Trunk or when using 77 to access Trunks. This only applies when using Automatic Route Selection.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **81**

```
M:81 .
FORCE ARS
```

Step 3: Enter Station Port number **01 - 44**

e.g. Port 28 is Station 127

```
M:81 28          NO
  ST:127  LCD
```

Step 4: Press **MSG** for Force ARS (Yes) or **FLASH** for No.

e.g. Set to Force ARS

```
M:81 28         YES
  ST:127  LCD
```

Step 5: Press **HOLD** to save change.

```
*:81 28         YES
  ST:127  LCD
```

Step 6: Press **CONF** to set ALL Station Ports the same.

e.g. All Stations must follow ARS

```
*:81 28         YES
  ST:127  LCD
```

Step 7: (Optional) Move to next Station Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Station Port
Port 24 must always follow ARS

```
M:81 29         YES
  ST:128  LCD
```

(Mode 82) Automatic Route Selection Time-out

For Automatic Route Selection, Keyphones automatically access a Trunk after 3 to 4 digits, Single-Line Telephones require a pause after dialing to show the complete number has been dialed. This is because the DTMF signals generated by the Single-Line Telephone will interfere with the Auto Dialing after the system has determined which Trunk to access.

The Automatic Route Selection Time-out can be set from 1 to 9999 seconds. A time of 3 to 5 seconds is recommended.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **82**

e.g. ARS Time-out is 5 seconds

```
M:82                5
ARS TIME-OUT
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:82                0
ARS TIME-OUT
```

Step 4: Enter ARS Time-out.

e.g. Set ARS Time-out to 3 seconds

```
M:82                3
ARS TIME-OUT
```

Step 5: Press **HOLD** to save change.

```
*:82                3
ARS TIME-OUT
```

(Mode 83) Area Code Table

There can be up to ninety-six Area Codes set in the Area Code Table. The Area Code Table is used when the telephone number dialed starts with the Long Distance Call Prefix.

Each three digit Area Code can be set to one of eight routes. The order is 01 - 96 with the first match being the one used. If an Area Code is not present in the Area Code Table the default route 1 is used.

The digit * can be used as a "wildcard" (* = all digits 0 - 9). More than one wildcard can be used in a Area Code.

See (Mode 72) Long Distance Call Prefix for setting the Long Distance Call Prefix.

See (Mode 85) Route Table for how to set up the routes.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **83**

```
M:83 .
AREA CODE TABLE
```

Step 3: Enter position number **01 - 96**

e.g. first position is empty

```
M:83 01          1
AREA CODE TABLE
```

Step 4: Press **FLASH** to erase an existing Area Code.

```
M:83 01          1
AREA CODE TABLE
```

Step 5: Enter new Area Code **3 digits**

e.g. Set number to 213

```
M:83 01     213 1
AREA CODE TABLE
```

Step 6: Enter new Route **1 - 8**

e.g. Set to route 3

```
M:83 01     213 3
AREA CODE TABLE
```

Step 7: Press **HOLD** to save change.

```
*:83 01    213 3
AREA CODE TABLE
```

Step 8: Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number

```
M:83 02        1
AREA CODE TABLE
```

(Mode 84) Office Code Table

There can be up to ninety-six Office Codes set in the Office Code Table. The Office Code Table is used when the telephone number dialed does not start with the Long Distance Call Prefix.

Each three digit Office Code can be set to one of eight routes. The order is 01 - 96 with the first match being the one used. If an Office Code is not present in the Office Code Table the default route 1 is used.

The digit * can be used as a "wildcard" (* = all digits 0 - 9). More than one wildcard can be used in a Office Code.

Programming Procedure:

See (Mode 83) Route Table for how to set up the routes.

(Mode 85) Route Table

Each route can have a Trunk Hunt Group set for each Time Period (1 - 8). Time Periods 1 - 7 are programmable while Time Period 8 is used for Holidays and Weekends.

See (Mode 86) Time Period for how to set Time Periods for routes.

See (Mode 87) Holiday Table for setting Holidays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **85**

```
M:85 .
ROUTE TABLE
```

Step 3: Enter Route number **1 - 8**

e.g. Route 3

```
M:85 3  .
ROUTE TABLE
```

Step 4: Enter Time Period **1 - 8**

e.g. Time Period 2

```
M:85 3  2       1
ROUTE TABLE
```

Step 5: Enter new Trunk Hunt Group **1 - 8**

e.g. Set to Trunk Hunt Group 5

```
M:85 3  2       5
ROUTE TABLE
```

Step 6: Press **HOLD** to save change.

```
*:85 3  2       5
ROUTE TABLE
```

Step 7: Move to next Time Period. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Time Period

```
M:85 3  3       1
ROUTE TABLE
```

(Mode 86) Time Period

Each route has eight Time Periods (1 - 8). Time Periods 1 - 7 are programmable while Time Period 8 is used for Holidays and Weekends.

The seven programmable Time Periods are defined by six programmable times. The times can be set to the hour.

Time Period 1	- Midnight to Time 1
Time Period 2	- from Time 1 to Time 2
Time Period 3	- from Time 2 to Time 3
Time Period 4	- from Time 3 to Time 4
Time Period 5	- from Time 4 to Time 5
Time Period 6	- from Time 5 to Time 6
Time Period 7	- from Time 6 to Midnight

If the times are not set then Time Period 1 is used by default. If a Time is not set then it is treated as midnight.

See (Mode 85) Route Table for setting Routes.

See (Mode 87) Holiday Table for setting Holidays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **86**

```
M:86 .
ARS TIME PERIOD
```

Step 3: Enter Time **1 - 6**

e.g. Time 1

```
M:86 1          0
ARS TIME PERIOD
```

Step 4: Press **FLASH** to erase an existing Time.

e.g. Time Period 1

```
M:86 1          0
ARS TIME PERIOD
```

Step 5: Enter new Time **0 - 24**

e.g. Set to 8:00 am

```
M:86 1          8
ARS TIME PERIOD
```

Step 6: Press **HOLD** to save change.

```
*:86 1          8
ARS TIME PERIOD
```

Step 7: Move to next Time Period. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Time Period

```
M:86 1          0
ARS TIME PERIOD
```

(Mode 87) Holiday Table

There can be up to sixteen Holidays set for Automatic Route Selection.

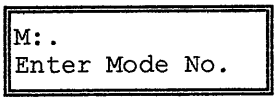
When a Holiday is set the day is treated the same as a Weekend. The set Time Periods are ignored and the Trunk Hunt Group set for Time Period 8 is used instead.

See (Mode 85) Route Table for how to set up the routes.

See (Mode 86) Time Period for how to set Time Periods for routes.

Programming Procedure:

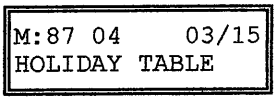
Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.



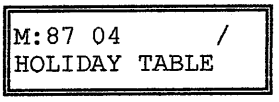
Step 2: Enter Mode **87**

Step 3: Enter position number **01 - 16**

e.g. fourth date is March 15

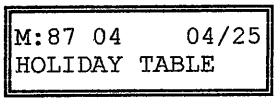


Step 4: Press **FLASH** to erase an existing Date.

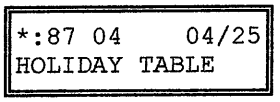


Step 5: Enter new Date **MM/DD**

e.g. Set date to April 25

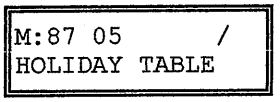


Step 6: Press **HOLD** to save change.



Step 7: Move to next date. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next date (blank)



(Mode 88) Addition / Subtraction Table

Each route can have a number dialed modifier to route the number through the selected telephone service. This provides for the deletion and addition of digits.

The deletion and addition of digits occur at the front of the number dialed. Up to sixteen digits can be set for addition for each route.

See (Mode 85) Route Table for how to set up the routes.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **88**

```
M:88 .
ADD / SUB TABLE
```

Step 3: Enter route **1 - 8**

e.g. route 2 has no modification set.

```
M:88 2
```

Step 4: Press **FLASH** to erase an existing entry.

```
M:88 2
```

Press **REDIAL** to enter the number of digits to delete.

```
M:88 2
```

Enter the number of digits to delete 1 - 9 digits

e.g. Delete 4 digits

```
M:88 2
R4
```

Enter new digits to be added 1 - 16 digits

e.g. Dial access code 9584 before number.

```
M:88 2
R49584
```

Step 5: Press **HOLD** to save change.

```
*:88 2
R49584
```

Step 6: Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number

```
M:88 3
```

9911303000
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